DOCUMENT RESUME

ED 393 463		IR 055 869

AUTHOR	Kellerman, L. Suzanne, Comp.; Wilson, Rebecca, Comp.
TITLE	Digitizing Technologies for Preservation. SPEC Kit 214.
INSTITUTION	Association of Research Libraries, Washington, D.C. Office of Management Services.
REPORT NO	ISSN-0160-3582
PUB DATE	Mar 96
NOTE	179p.
AVAILABLE FROM	Association of Research Libraries, Office of Management Services, 21 Dupont Circle, N.W., Washington, DC 20036.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	Archives; Information Storage; Information Technology; *Library Materials; Library Surveys; *Library Technical Processes; *Preservation
IDENTIFIERS	*Association of Research Libraries; Digital Imagery; *Digital Technology; Digitizing

ABSTRACT

The Association of Research Libraries distributed a survey to its 119 member libraries to assess the use of state-of-the-art digital technologies as a preservation method. Libraries were asked to report detailed data on all projects designed specifically to: (1) enhance images of faded or brittle originals, (2) provide access to digital images while limiting handling of the originals, or (3) preserve electronic text files. Seventy-eight libraries (66%) responded. Twenty-nine respondents (37%) indicated that they are utilizing digital technologies in some way for preservation purposes. Libraries which currently are or were engaged in a digital preservation project are inclined to plan future projects. Ten (34%) of the reporting libraries are engaged in digitizing 19 archival collections, constituting a multitude of format types; books, photographs, and slides were the most frequently cited source materials being digitized. The majority of libraries specified having PC-based systems, with flatbed scanners being the major capture device. Adobe Photoshop was the most frequently cited image processing and editing enhancement software in use. The four most often cited storage devices chosen were hard drive (20), CD-ROM (11), magnetic tape (8), and optical disk (8). Indexing is most often performed by manual input as opposed to automatically by system software. Across all libraries, a total of 65.30 FTE personnel are engaged in digital preservation-related activities. At present, uniform standards and recommended guidelines do not exist for digitizing for preservation purposes, and the technology is too new to determine its longevity as a permanent storage medium. Examples of funding proposals, materials selection guidelines, job and project descriptions, bibliographic control, and project publicity are provided for selected libraries. (Contains a list of 46 selected readings.) (Author/AEF)

SPEC

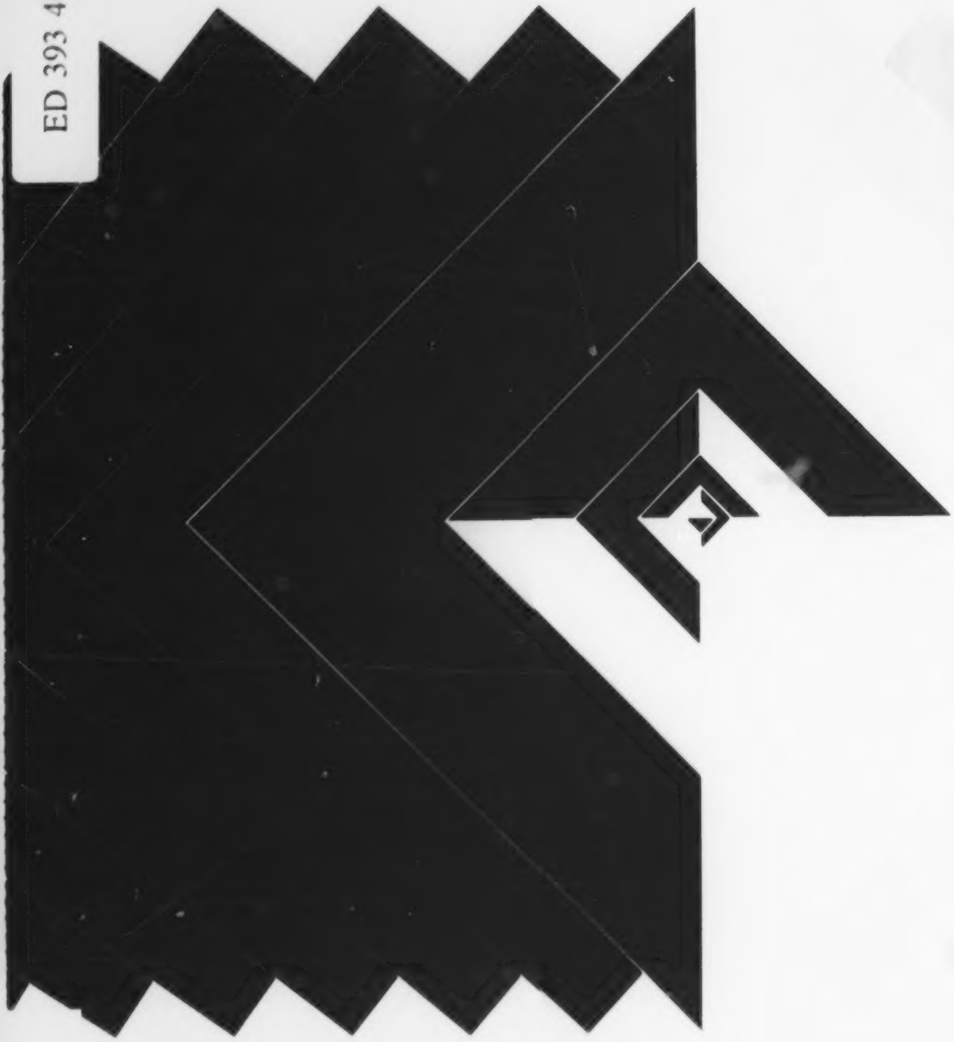
SYSTEMS AND PROCEDURES EXCHANGE CENTER

Kit 214

Digitizing Technologies for Preservation

March 1996

ED 393 463



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SYSTEMS AND PROCEDURES EXCHANGE CENTER

Flyer 214

Digitizing Technologies for Preservation

March 1996

INTRODUCTION

As a result of recent developments in information technology, the conversion of multiple-format materials into digital images is becoming increasingly widespread. Libraries are experimenting with digitization technology, a process which will impact how we organize, access, store, and ultimately preserve our collections.

In November 1995, ARL distributed a survey to its 119 member libraries to assess the use of state-of-the-art digital technologies as a preservation method. Libraries were asked to report detailed data on all projects designed specifically to: 1) enhance images of faded or brittle originals, 2) provide access to digital images while limiting handling of the originals, or 3) preserve electronic text files.

The intent of this survey was to identify and describe activities within those ARL libraries that had embarked on various projects; no attempt has been made to evaluate or assess them. While digital technologies are primarily being employed to increase *access* to materials, e.g., electronic reserves and texts, such use was not within the purview of this survey.

SURVEY RESULTS

Seventy-eight (66%) libraries responded. Twenty-nine respondents (37%) indicated that they are utilizing digital technologies in some way for preservation purposes, and collectively they reported 46 distinct projects which either have been terminated, or are currently underway or being planned.

Noteworthy among the findings is the tremendous variety of projects described, in terms of size, scope, and types of materials being digitized as well as hardware and software chosen for each project.

Project(s) Status: In terms of project category status, success appears to build upon success. Libraries which currently are or were engaged in a digital preservation project are inclined to plan future projects. For example, six libraries reported using digital technologies and are also planning future projects. Eight libraries are utilizing digital technologies, have terminated projects, and are planning future ones. Seven libraries reported being currently engaged in a project(s), while six libraries indicated that they were still in the planning stages. Only two libraries reported that they had terminated projects, and gave no indication of future activity.

Of the 78 respondents, 49 (63%) are *not* using digital technologies for preservation. Of the remaining 29 libraries who are, combinations of project status include 22 active projects; 10 terminated or completed projects; and 20 new or additional projects in the planning stage. Over two-thirds (69%) of those 29 libraries indicated plans for future preservation digitizing activities. Several libraries not currently engaged in any digitizing efforts indicated a high probability of undertaking such a project in the near future.

Many of the reporting libraries began experimenting with digital technologies by implementing pilot projects as a means of gaining familiarity with the opportunities and advantages they offer. Of the 46 projects described, 27 (59%) began in this way. Funding of projects is divided evenly between external and internal sources, with nine projects funded by both sources. Most of the respondents indicated that they had purchased outright the hardware and software components required for their projects.

Materials Being Digitized: Of the 29 libraries providing survey data, ten (34%) are engaged in digitizing 19 archival collections, constituting a multitude of format types; the remaining were reformatting a single material type. Books, photographs, and slides were the most frequently cited source materials being digitized. Scrapbooks and maps or other flatwork were the next most popular categories. Three libraries had either used or planned to use digital technology to capture video and/or sound recordings, while one library described its efforts in a pilot project to preserve electronic text files.

Hardware and Software: While great variety was evident in choice of system hardware and software products, a few commonalities could be observed among system components and brand names being used. The majority of libraries specified having PC-based systems, with flatbed scanners being the capture device of choice by far. Images are being captured equally in black and white, grayscale, and color. About one-fourth (26%) were utilizing Photo CD technology for 12 projects. Only five sites, representing six projects, expressed use of Optical Character Recognition (OCR) as a component of the image capturing process.

Five libraries reported using Xerox equipment and software systems, while Adobe Photoshop was the most frequently cited image processing and editing enhancement software in use. Of output devices described, eight libraries reported using various Hewlett-Packard products. To some extent, material types being digitized dictates the system components appropriate for any specific project.

The four most often cited storage devices chosen were hard drive (20), CD-ROM (11), magnetic tape (8), and optical disk (8). Only four sites reported using a mass storage management system as a means to control digitized images. Twenty-three sites, representing 70% of all projects reported, are creating backup copies of their stored images.

An obvious shortcoming of the technology is its inevitable obsolescence. In an effort to prepare for this eventuality, a few libraries have begun the process of migrating data to emergent technologies, while they continue to preserve originals by archivally-proven methods. Only four sites reported having implemented a refreshing/migration program for their electronically-captured and stored images. Fifteen libraries (41% of projects) had created permanent archival copies of source documents, e.g., on microfilm or 35mm slide film, in addition to having digitized them.

Indexing & Bibliographic Control: Sites demonstrated greatest divergence in reporting how digitized images are indexed for access purposes. Indexing is most often performed by manual input as opposed to automatically by system software. In some cases, descriptors are assigned following local cataloging practice. However, some libraries reported using controlled vocabulary based on published thesauri, e.g., *Thesaurus for Graphic Materials* and the *Art & Architecture Thesaurus*.

Where indexing practices were described, the most frequently cited access points were: 1) *books*–author, title, year or date of publication, and keyword; 2) *photographs*–subject or keyword, title, date or year, names, photographer, and event or description; and 3) *slides*–subject or keyword, title, names, date or year, slogan or caption or inscription.

MARC cataloging records exist for materials in only 17 of the 46 projects, representing 37%. There is an indication in a Notes Field on the bibliographic record that digital copies of the material exists for even fewer projects, 13 (28%). Fewer still, only seven projects (15%) have created a collection level bibliographic record for digitized materials.

Staffing and Production: Across all libraries, a total of 65.30 FTE personnel at all levels are engaged in digital preservation-related activities. Of this total, the majority are professional staff, 26.3 FTE (40.2%); support staff represented 21.85 FTE (33.5%); student assistants accounted for 16.65 FTE (25.5%). One library reported .50 FTE volunteer assistance (.8%).

Rates for digitizing source documents varied among libraries from 20 to 200 per hour, with an overall average of 94.5 items per hour. Of the 29 libraries responding, 20 (69%) reported having digitized fewer than 10,000 items, which might indicate that most libraries are in the nascent stages of using digital technology for preservation. Seven libraries had digitized over 10,000 items, two over 100,000, and one was at the 1 million mark. Collectively, over 1.7 million items have been digitized for preservation purposes.

ISSUES & TRENDS

At present, uniform standards and recommended guidelines do not exist for digitizing for preservation purposes, and the technology is too new to determine its longevity as a permanent storage medium. Because a wide variety of approaches characterize digitizing for preservation activities, it will be worth monitoring which trends, if any, emerge as most prominent. Of increasing importance will be the medium's potential to migrate cost effectively to newer technologies as they evolve. Another issue will be the library community's adherence to bibliographic standards which describe and provide access points to digitized collections. Evidence also points to a high likelihood of more libraries initiating future pilot projects, while those with digital project experience are likely to build upon previous work.

CONCLUSION

Libraries engaged in digitizing for preservation projects are on the frontier of discovery as they explore long-term possibilities for the future. While most individual projects are small and highly diverse in scope and purpose, in the aggregate they represent a steadily growing movement toward more creative approaches to using these technologies for preservation purposes. Their very diversity provides the foundation upon which future initiatives can build. The cumulative experience gained from these projects will inform future endeavors.

This Kit and Flyer were compiled by L. Suzanne Kellerman, Preservation Librarian, Penn State University, and Rebecca Wilson, Associate Director, Susquehanna University and were prepared as part of the OMS Collaborative Research/Writing Program.

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SPEC
SYSTEMS AND PROCEDURES EXCHANGE CENTER

Digitizing Technologies for Preservation

A SPEC Kit compiled by

L. Suzanne Kellerman
Pennsylvania State University

and

Rebecca Wilson
Susquehanna University

March 1996

Editor....Laura A. Rounds, OMS Program Officer for Information Services
Production Assistant....Marianne Seales, Program Assistant

SPEC Kits are published by the
ASSOCIATION OF RESEARCH LIBRARIES

OFFICE OF MANAGEMENT SERVICES
21 Dupont Circle, NW
Washington, DC 20036
(202) 296-8656 Fax (202) 872-0884

ISSN# 0160 3582

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Kit 214

Digitizing Technologies for Preservation
March 1996

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SURVEY RESULTS

ASSOCIATION OF RESEARCH LIBRARIES
OFFICE OF MANAGEMENT SERVICES

TO: SPEC Liaisons
Preservation Librarians

FROM: Sue Kellerman, Preservation Librarian, Penn State University
Rebecca Wilson, Assoc. Director, Susquehanna University
Laura Rounds, OMS Program Officer for Information Services

DATE: November 9, 1995

SUBJ: Survey on the Use of Digitizing Technologies for Preservation in ARL Libraries

ARL is conducting a survey to gather information about the status of digitizing technologies being used for preservation purposes in ARL libraries. Survey data, together with supporting documentation, will be published in a SPEC Kit later this year and will assist in profiling the extent to which this technology is being used today. Digital technologies utilized solely to enhance access, e.g., Electronic Reserves, should not be reported in this survey.

Please complete the survey by **December 22, 1995** and return it to the address listed at the bottom of the survey. Thank you.

In addition to returning the completed survey, please send any or all of the following documentation pertaining to your preservation digitizing activities at your library.

- Funding proposals for digitizing projects (including RFPs)
- Internal planning documents including mission statements, etc. of established committees, material selection guidelines, system configuration charts, staffing information, job descriptions, budgets, etc.
- Descriptions, summaries, reports, evaluations or publicity of projects or activities
- Samples of source documents which are digitized and printed results (i.e., input/output)
- Any other documents that may clarify or exemplify survey responses

NOTE:

1) All collective responses in the first part of the survey represent the 46 individually described projects. In many cases, totals exceed 46 because more than one response could be selected.

2) Data presented in chart format represents responses given *per institution* for 29 institutions.

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SPEC SURVEY: DIGITIZING TECHNOLOGIES FOR PRESERVATION PURPOSES

Please complete the survey below describing digitizing technologies employed for preservation purposes in your library or library system.

A. To gather as complete data as possible, please make as many copies of the survey as necessary (Questions 2-38 only) to separately describe each of your projects or digital preservation activities, whether past, present, or future.

B. Pilot projects should be reported separately as well.

C. Any subsequent phases of a single project should be considered as part of an ongoing effort and not treated as a separate project.

Please refer to the Survey Comments Section and accompanying charts for further information and responses to questions.

1. Regarding the use of digital preservation technologies for preservation purposes in your library, which of the following statements describes your situation? Check all that apply.

Of 78 responses:

(22%)* 17+ Our library currently utilizes digital technologies for preservation purposes.

(13%) 10 Our library has terminated or completed a digital technology preservation project(s) within the past three calendar years.

(26%) 20 Our library is planning new or additional projects to utilize digital technologies for preservation purposes within the next three calendar years.

(63%) 49 Our library is not using digital technologies for preservation purposes. **(Please STOP and return the survey).**

* Percentages total more than 100% because Libraries could check more than one category.
+ These numbers total more than the number of responses because more than one choice could be indicated.

Surveys Distributed:	119
Total Responses Returned:	78 (66%)
Institutions Reporting Projects:	29 (37%)
Number of Projects Described in Survey Responses:	46

I. BACKGROUND INFORMATION

2. What is the name/title of your project/activity?
See Project Synopses

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3. Is this a pilot project? For example, a project designed to test the technology using a small representative sample of a collection or collections.

(59%) 27 YES
(41%) 19 NO

4. Is this project part of a cooperative effort involving other libraries or agencies?

(33%) 15 YES
(67%) 31 NO

If YES, please indicate institutions involved.
See Project Synopses

5. For your digitizing for preservation project/activity, please provide the following information:

Scope:
Goals: **See Project Synopses**
Begin/End Dates:
Funding Source:
  Is funding source:
    24 external
    21 internal
    10 unknown
[Of the 46 projects reported, **9** have both external and internal funding.]

6. Regarding your digitizing system **equipment/hardware**, which of the following statements describes your situation:

25 purchased by the library and/or university
3 leased from a computer center dealer or vendor
4 shared with another department on campus
2 made available by other means, please specify:
8 digitizing services are contracted out. (Answer remaining survey as completely as possible.).

7. If digitizing services were contracted out, please provide vendor name(s):
See Comments Section

8. Regarding your digitizing system **software**, which of the following statements describes your situation:

24 purchased by the library and/or university
4 leased from a computer center dealer or vendor
5 shared with another department on campus
2 made available by other means, please specify:
8 digitizing services are contracted out.

9. If contracted out, please provide name(s) of your software vendor:
See Comments Section

II. COLLECTIONS BEING DIGITIZED FOR PRESERVATION

10. Are you digitizing an archival collection, i.e., multiple formats or media?

(41%) 19 YES
(59%) 27 NO

If YES, please indicate size of the archival collection being digitized. Choose either measurement to report collection size.

Size/Linear feet: **See Institutional Profile:**
Number of pieces: **Source Documents Being Digitized (Chart)**

11. If NO, which types of **source documents** are being digitized? Note whether documents are primarily black/white or color. Check all that apply **and** give number of items if known. (**Source documents** refer to actual material type being scanned, e.g., original bound books or slides made from original works of art.)

Source Document	B/W or Color	Number of Items
18 Books		
4 Music scores		
5 Manuscripts		
6 Periodicals		
2 Blueprints		
4 Log books, diaries, ledgers, etc.		
3 Newspapers		
7 Scrapbooks (clippings)		
6 Art work/objects (paintings, etc.)		
10 Maps & other (flat work)		
18 Photographs		
11 Slides		
4 Microforms		
2 Video		
2 Sound recordings		
8 Other, please specify:	**1** Photo Album **1** Electronic Formats **1** Government Reports **1** Political Cartoons	**1** Postcards **1** Transparencies **1** Glass-Plate Negatives **2** Pamphlets

III. EQUIPMENT: HARDWARE & SOFTWARE

12. What platform does your digitizing system reside/run on?

28 PC-based (DOS or Windows)
7 Mac-based
9 UNIX
0 Other, please specify: **See Also Institutional Profile:**
3 Don't Know **Hardware and Imaging**
5 N/A **(Chart)**

13. Please list your **system hardware components.** Indicate brand names and model numbers, if known:

CPU/amt. of RAM:
Capture Device:
Storage Device:
Display Device:
Output Device:
Number of imaging workstations:

See Institutional Profile:
System Hardware Components
(Chart)

14. Please indicate your **system software programs** being used.

Function — **Brand name of software used**

Operating system:
Image capture:
Image processing:
Indexing:
Searching/retrieval:
Editing/Enhancement:
Telecommunications:
Compression:
Other:

See Institutional Profile:
System Software Programs
(Chart)

IV. IMAGING

15. What type of digitizing technology (capturing device) is being used?

36 Flatbed scanner [with ADF - 1]
3 Sheetfed scanner
8 Slide scanner
1 Drum scanner
0 Hand-held scanner
6 Digital camera
0 Still-video camera
1 Video capture board
4 Other, please specify:
  2 Microfilm scanner
  1 Audio Capture
2 N/A
1 Unknown

See Also Institutional Profile:
Hardware and Imaging
(Chart)

16. Source documents are captured as: Check all that apply.

25 Black & White
20 Grayscale
22 Color
0 Other, please specify:
1 N/A

See Also Institutional Profile:
Hardware and Imaging
(Chart)

17. Are you using Photo CD imaging technology?

(26%)	**12**	YES
(70%)	**32**	NO
(4%)	**2**	NO RESPONSE

18. For textual materials that are being digitized, are you using optical character recognition (OCR) technology?

(13%)	**6**	YES
(55%)	**25**	NO
(28%)	**13**	N/A
(4%)	**2**	NO RESPONSE

19. Indicate file format in which digitized images are saved: Check all that apply.

3	ASCII
0	EPS (Encapsulated Postscript)
18	TIFF (Standardized)
4	TIFF (Proprietary)
4	TIFF (Mac-based)
10	GIF (Graphics Interchange Format)
3	PICT
0	RIFF
0	PCX
0	BMP (Windows Bitmap)
0	CGM (Computer Graphics Metafile)
0	WMF (Windows Metafile)
7	Photo CD file (image pack)
3	Don't know
3	Other, please specify: .JPG; .MAP - a Visual Table of Contents; PDF

20. Regarding input resolution, source documents are being digitized at which of the following pixels per inch (ppi) or pixel by pixel dimensions: Check all that apply. (ppi is sometimes referred to as dpi, dots per inch.)

3	150 ppi
3	200 ppi
12	300 ppi
5	400 ppi
19	600 ppi
3	1200 ppi
0	2400 ppi
1	Pixel Dimension, specify pixel x pixel:
3	Don't know
1	N/A
3	Other, please specify: 75 ppi; Photo CD - 5 resolutions; 24-Bit Color & 8-Bit Grayscale for full size; JPEP-sized; 48 Pixels high

21. What type of mass storage device is used?

27	Hard drive
8	Magnetic tape
16	CD-ROM
12	Optical Disk (Rewritable)
1	WORM Optical Disk (Write-once-read-many)
2	Other, please specify: College Computing; Removable Hard Drive

See Also Institutional Profile:
Storage and Management
(Chart)

22. Which compression method is used when storing images?

12	Uncompressed (No compression is used)
0	CCITT Group 3
8	CCITT Group 4
2	LZW (Lempel-Ziv-Welch)
0	IRMM
0	RLE (Run Length Encoding)
0	Pack Bits
14	JPEG
14	Don't know
1	Other, please specify: Photo CD proprietary compression

22a. If known, what is the approximate average file size of your digitized images?
See Comments Section

23. Do you use a mass storage management system, i. e., a jukebox to manage your stored images?

(12%)	6	YES
(68%)	31	NO
(20%)	9	NO RESPONSE

24. Do you create back-up copies of your stored images?

(70%)	32	YES
(28%)	13	NO
(2%)	1	NO RESPONSE

25. Have you established a **refreshing or migration program** for your electronically stored images?

(9%)	4	YES
(85%)	39	NO
(6%)	3	NO RESPONSE

If YES, please describe your refreshing/migration program, giving frequency and method.
See Comments Section

25a. Have you created a permanent archival copy, i.e., microformat, of your digitized source documents?

(41%)	**19**	YES
(55%)	**25**	NO
(2%)	**1**	NO RESPONSE
(2%)	**1**	N/A

If YES, please indicate medium used.
See Comments Section

26. Regarding the methods used for indexing digitized images:

1	Undecided
9	There is no indexing associated with our digital images (browse only)

Indexing is performed:

10	automatically by system software
28	by manual input

26a. If indexing is performed by manual input, what, if any, authority is used for assigning indexing descriptors, e.g., Thesaurus for Graphic Materials?
See Comments Section

27. List the primary fields that are indexed, if any, e.g. author, title, keyword, etc. and other indexing techniques used.
See Comments Section

28. Describe methods available for patron access to your digitized images files. Check all that apply.

23	Stand-alone access (single user; single workstation)
14	Local network access (accessible via multiple workstations in library system)
10	Campus LAN access
2	OCLC
2	RLIN
1	WAIS (Wide Area Information Service)
0	Internet: Gopher
21	Internet: World Wide Web
3	Other, please specify: CD-ROM

28a. If available on the Internet, please provide electronic addresses of your image files:
See Project Synopses

29. Do MARC records exist for source documents being digitized?

(37%)	**17**	YES
(50%)	**23**	NO
(11%)	**5**	PARTIALLY
(2%)	**1**	NO RESPONSE

30. For cataloged digitized materials, does the MARC record indicate that digital copies exist?

(28%)	**13**	YES
(26%)	**12**	NO
(22%)	**10**	N/A
(24%)	**11**	NO RESPONSE

30a. Does a collection-level bibliographic record exist for the digital preservation project?

(15%)	**7**	YES
(81%)	**37**	NO
(4%)	**2**	NO RESPONSE

31. How, if at all, have you publicized your digitizing for preservation project or activity? Please send samples where possible.

18	Have not publicized		
9	Brochures, fact sheets, bookmarks, etc.		
18	In-House Article(s)		
8	Published article(s)		
2	OPAC		
1	Gopher		
18	WWW		
7	Other, please specify:		
		3	Presentations at conferences
		2	Word of mouth
		1	Louisiana State University Press
		1	Listed on ConsDistList

32. Which methods of output are used? Check all that apply.

7	Images are not printed (no output)						
20	Electronic display only (computer screen)						
2	TV Monitor						
1	Slides						
1	Microforms						
8	CDs/CD-ROMs						
0	Videodiscs						
39	Printers (Paper output):						
		0	Video printer				
		25	Laser printer	**5**	Color	**22**	B & W
		6	Inkjet printer	**4**	Color	**3**	B & W
2	Dye sublimation printer						
5	Other high-resolution output device, please specify: DocuTech						
1	Other, please specify: Dot matrix printer						

33. Do you provide print-on-demand services for your digitized images?

(37%)	**17**	YES
(59%)	**27**	NO
(4%)	**2**	NO RESPONSE

If YES, please indicate contact person responsible for print-on-demand services:
See Project Synopses.

34. If digitized images are printed, indicate output resolution (dots per inch) used:

9	No Response
13	Not Applicable
0	100 dpi
9	300 dpi
0	400 dpi
16	600 dpi
0	1200 dpi
2	Other, please specify: 100 - 600 dpi (varies per request) 200 dpi

35. How many staff are engaged in your digitizing projects/activities?Please report as FTEs.
See Also Total FTE Staffing (Chart)

(40.2%)	**26.30**	Professional Staff (FTE)
(33.5%)	**21.85**	Support Staff (FTE)
(25.5%)	**16.65**	Student Assistants (FTE)
(0.8%)	**0.50**	Volunteer
	0	Not Applicable (Project/activity is contracted out).
	65.30	**TOTAL FTEs (All Levels)**

36. If known, what is the average rate (items or pages per hour) for digitizing your source documents?
See Comments Section

37. To date, how many source documents have been digitized for this project?

Institutional responses:

7	0 - 100
6	101 - 500
4	501 - 1000
3	1001 - 5000
0	5001 - 10,000
7	Over 10,000; please specify number: **See Comments Section**
2	N/A

COMMENTS TO SPECIFIC SURVEY QUESTIONS

7. If digitizing services were contracted out, please provide vendor name(s) for equipment/hardware:

- Luna Imaging, MicroColor International, Boston Photo Imaging, Stokes Imaging, Visual Information Inc., Preservation Resources. (Columbia)
- Northern Micrographics, Lacrosse, Wisconsin. (Cornell)
- Purdue University. (Indiana)
- Image Foundry, Baltimore, Md. (Johns Hopkins)
- In one of the projects, we plan to use Stokes Imaging. (Maryland)
- Southwest Micropublishing Inc., El Paso, Tx. (New Mexico)
- Project #1; Stokes Imaging; Project #2: Luna Imaging. (Northwestern)

9. If digitizing services were contracted out, please provide vendor name(s) for software:

- Luna Imaging, MicroColor International, Boston Photo Imaging, Stokes Imaging, Visual Information Inc., Preservation Resources. (Columbia)
- Xerox Corporation. (Cornell)
- Kodak Photo CD. (Indiana)
- Software purchased by contractor and written for this project by Alaras. (Johns Hopkins)
- Project #1: Stokes Imaging: Stokes designed software called "Visual Photologue" for the project. (Northwestern)

22a. If known, what is the approximate average file size of your digitized images:

Average File Size:

2	N/A
2	Unknown
2	Varies Wildly
1	35 KB Compressed
1	50 KB Compressed
3	75 KB Compressed
1	30 - 50 KB Compressed

Ranges:

1	100 - 150 KB
1	149 KB - 27 MB
1	700 KB - 1.5 MB
1	1 MB - 1.6 MB

KB Sizes Reported:

1	60 KB
1	85 KB
2	214 KB
2	350 KB
2	400 KB
1	800 KB

MB Sizes Reported:

2	7 MB
1	14 MB
1	30 MB

25. If you have established a refreshing/migration program, please briefly describe the method used:

- Transferred to disks, dated. Hard drive is backed up weekly. (Case Western Reserve)

- No, but a library committee has been charged with this assignment. We have migrated data several times. (Cornell)

- For DAT—... periodic review/refreshing is scheduled for once every 3 years and migration to new magnetic media (e.g. a new tape or disk) no less than once every 10 years. (Florida)

- Data regenerated and backed up weekly. DAT tapes exercised biannually. (Johns Hopkins)

- Normal internal systems migration activities address this. (NLC)

25a. Have you created a permanent archival copy, i.e., microformat of your digitized source documents? If yes, please indicate medium used:

- Printed and bound copy on acid-free paper. (Case Western Reserve)

- Original materials will be retained. (Chicago)

- Black and white high density preservation microfilm for black and white text; ilfachrome color microfiche for oversize color images; slides for smaller color and grayscale images. (Columbia)

- We have created paper facsimiles on permanent/durable paper—the copies pass the tape peel test as specified by NARA. For project #1 we are also creating Computer Output Microfilm (COM) from the digital files that we feel meets ANSI/AIIM/RLG standards for image quality and permanence. (Cornell)

- The source microfilm remains the "archival" product. We also are exploring "digital microfilm" (per Cornell) for future projects and the future of the digital "archive." (Florida)

- Photographic film. (Hawaii)

- Project #1: In most cases in this pilot project, an archival negative is created. (Illinois, Urbana-Champaign)

- We consider the Photo CD the archival copy, as it is probably more permanent than either the color slide intermediaries or the paper originals. (Indiana)

- Full size images stored on CD and DAT tape. (Johns Hopkins)

- Project #1 - #2: CD-ROM; Project #3: Syquest cartridge, copy negatives, inner positive copy prints. (LSU)

- CD-ROM. (NAL)

- The documents are digital rather than digitized. Hard copy versions exist for some of the publications, and these are handled through the regular preservation program of the library. (NLC)

- Project #1: Photographic negatives. (Northwestern)

- Microfilm already exists. (Smithsonian)

- 35mm microfilm. (Yale)

26a. If indexing is performed by manual input, what, if any, authority is used for assigning indexing descriptors?

- System software dictates and limits indexing descriptors. (Case Western Reserve)

- Legislative indexing vocabulary. (Emory)

- LC Subject Headings. (Florida)

- Note tag is free text. Subject headings for base record are local LC-type headings. (Hawaii)

- Project #1: LC Thesaurus for Graphic Materials; Art and Architecture Thesaurus; Project #2: Indexing has not yet begun. Controlled vocabulary sources have not yet been determined. (Illinois, Urbana-Champaign)

- LC Thesaurus for Graphic Materials. (Johns Hopkins)

- Project #1 - #2: IBM Book Manager; Project #3: Macromedia Director, ULead's Image Pals. (LSU)

- CAB Thesaurus. (NAL)

- Art and Architecture Thesaurus. (New Mexico)

- Project #1: Photographs were grouped into broad categories, e.g., landscape, portraits, etc. (Northwestern)

- Project #1 - #2: No authority is used for either project. For project #1, curators provide basic indexing instructions for indexing at the folder level. (Penn State)

27. List the primary fields that are indexed.

The following is a listing of the indexed fields identified for the three most commonly digitized source documents: books, photographs, and slides. Primary fields indexed for other types of source documents varied widely depending on the material type and local indexing practices and are not reported out. (Number denotes number of project responses for each item.)

Primary fields indexed for BOOKS included:

7	Author
7	Title
7	Year/Date of Publication
4	Keyword
3	Table of Contents
2	Index
2	List of Illustrations
1	Title Page
1	Bibliography
2	Page Level
2	Page Number
1	Report Number
1	Source
1	Number of Volumes
1	Name
1	Subject
1	Publisher
1	Place of Publication
1	Volume Label
1	Subtitle
1	Edition
1	Number of Pages

Primary fields indexed for PHOTOGRAPHS included:

8	Subject Keyword
5	Date/Year
5	Title
5	Names
4	Photographer
4	Event/Description
3	Location
2	Call Number
1	Subtitle
1	Inscription
1	Record Number

Primary fields indexed for SLIDES included:

4	Subject Keyword
4	Title
2	Names
2	Date/Year
2	Slogan/Caption/Inscription
2	Description
2	Location
1	Record Number
1	Illustration Title
1	Photographer

- We also create document structure files for monographs that tag the relevant pages/images associated with self-referencing portions of a text, e.g., table of contents, title page, index, bibliography, etc. For the serial literature, we are anticipating lower level indexing, keying in the author and title information at the article level. (Cornell)

- Only select articles/titles are indexed; selection based upon written criteria. (Florida)

- Images have been grouped into categories based on labels in the album. Users can choose from these groups. Individual photos within each group are labeled as well. (Kent State)

- For journal articles, MARC indexing records are downloaded from AGRICOLA and linked to the page images. (NAL)

- Document titles, document subjects, and archive keywords are indexed, but images are not. (NLC)

- Indexing planned for the future. (Smithsonian)

31. How, if at all, have you publicized your digitizing for preservation project or activity?

- The project is under construction, so a publicity effort is planned for the future. A feature in Library Horizons, the University of Alabama Libraries' biennial newsletter, is forthcoming and there are plans for a Spring Beta-Phi-Mu-sponsored colloquium on the project. By early May, the projected completion date, there will be an effort towards additional publications and an announcement on relevant electronic mailing lists. (Alabama)

- Mellon Foundation and Sallam have released project descriptions including scope of University of Florida (sub-) project. Additional publicity is planned via Internet/URL/WWW, with announcements of the page and some of its information in brochures, fact sheets and published articles. (Florida)

- Project #1-#2: The projects involve teams of librarians, and teaching and research faculty with subject expertise. This involvement helps to stimulate more widespread interest in the projects. (Illinois, Urbana-Champaign)

36. If known, what is the average rate (items or pages per hour) for digitizing your source documents? (Number denotes number of project responses for each item.)

6	N/A
2	Unknown
2	Varies Wildly
1	No Response

1 Books OCRed: 5 per hour
(this figure is not included in the overall average)

Items per Hour:

1	20 per hr.
1	25 per hr.
2	40 per hr.
1	50 per hr.
1	60 per hr.
1	75 per hr.
1	80 per hr.
1	100 per hr.
1	110 per hr.
1	123 per hr.
3	200 per hr.

Ranges from 20 items per hour to 200 items per hour with an average of 94.5 items per hour.

37. To date, how many source documents have been digitized for this project?

Over 10,000, please specify:

10,103	(Florida)
12,000	(Hawaii)
35,000	(NAL)
63,000	(MIT)
151,644	(Penn State)
430,000	(Yale)
1 million	(Cornell)

- EPPP (Electronic Publication Pilot Project) does not involve digitization. However, as of October 25, 1995 the EPPP collection consisted of 25 titles with 21 additional titles in progress. As many of these are periodicals, collecting and storing each title can involve a significant number of individual issues and files. (NLC)

- A total of 151,644 digital images exist from all preservation scanning projects: PA Agricultural collection - 120,424 images; SWOC (Steel Workers' Organizing Committee) collection - 14,086; Brittle books - 11,873 images; Out-of-Print books - 5,261 images. (Penn State)

RESPONDING INSTITUTIONS

University of Alabama
University of Alberta
Arizona State University
Auburn University
Boston University
University of British Columbia
Brown University
University of California, Berkeley
University of California, Irvine
University of California, Riverside
University of California, San Diego
Case Western Reserve University
Center for Research Libraries
University of Chicago
University of Colorado
Colorado State University
Columbia University
Cornell University
Dartmouth College
Emory University
University of Florida
Florida State University
Georgia Institute of Technology
University of Hawaii
University of Houston
University of Illinois, Chicago
Univ. of Illinois, Urbana-Champaign
Indiana University
Iowa State University
Johns Hopkins University
Library of Congress
Linda Hall Library
Kent State University
University of Kentucky
Louisiana State University
McMaster University
University of Manitoba
University of Maryland
University of Massachusetts
Massachusetts Institute of Technology
University of Miami
Michigan State University
University of Minnesota
University of Missouri
National Agricultural Library
National Library of Canada
University of Nebraska, Lincoln
University of New Mexico
New York University
North Carolina State University
Northwestern University
University of Notre Dame
Ohio State University
University of Oklahoma
Oklahoma State University
Pennsylvania State University
University of Pittsburgh
Princeton University
Purdue University
University of Rochester
Rutgers University
Smithsonian Institution
University of Southern California
State University of New York, Albany
State University of New York, Buffalo
Temple University
University of Tennessee
University of Texas
University of Toronto
Tulane University
University of Utah
Virginia Polytechnic Inst. & State Univ.
University of Washington
University of Waterloo
Wayne State University
University of Wisconsin, Madison
Yale University
York University

STATUS OF INSTITUTIONS USING DIGITAL TECHNOLOGIES FOR PRESERVATION PURPOSES
(29 Institutions Reported 46 Projects)

Currently Utilizing (17)	Planning (20)	Terminated/Completed (10)
1.	Alabama (1)*	
2.	British Columbia (1)	
3. Brown (1)	Brown (2)	
4.	Case Western	Case Western (1)
5.	Chicago (1)	
6. Columbia (1)		
7. Cornell (3)		
8. Dartmouth (1)		
9.	Emory (3)	
10 Florida (1)	Florida	
11.		Hawaii (1)
12. Illinois-Urbana (2)		
13.	Indiana	Indiana (1)
14. Johns-Hopkins (1)		
15. Kent State (1)		
16. Louisiana State (2)	Louisiana State	Louisiana State (1)
17.	Maryland (7)	
18. MIT (1)	MIT	
19. National Agricultural Library (1)	National Agricultural Library	
20 National Library of Canada (1)	National Library of Canada	National Library Canada
21.		New Mexico (1)
22. Northwestern (1)	Northwestern	Northwestern (1)
23. Penn State (2)		
24.	Tennessee	Tennessee (1)
25. Toronto (1)	Toronto	
26.	Smithsonian (1)	
27. VPI-SU (1)	VPI-SU	
28.	Wisconsin	Wisconsin (1)
29. Yale (1)	Yale	Yale

** Numbers in parentheses denote number of projects described in the survey by each institution for a particular category: currently utilizing; planning; or terminated/completed.*

INSTITUTIONAL PROFILE: SOURCE DOCUMENTS BEING DIGITIZED

	(Ques. #10) DIGITIZING ARCHIVAL COLLECTIONS				(Ques. #11) TYPES OF SOURCE DOCUMENTS															OTHER
INSTITUTION	YES	SIZE / FEET	PIECES	NO	BOOKS	MUSIC SCORES	MANUSCRIPTS/CORR.	PERIODICALS	BLUEPRINTS	LOG BOOKS	NEWSPAPERS	SCRAPBOOKS	ARTWORK/OBJECTS	MAPS/FLATWORK	PHOTOGRAPHS	SLIDES	MICROFORMS	VIDEO	SD. RECORDINGS	
1. Alabama	x		100		x		x		x	x		x	x		x					Pamphlets
2. Brown (3)				x	x	x	x	x		x	x	x	x	x	x	x				
3. British Columbia	x		300,000												x	x				
4. Case Western				x	x	x								x						
5. Chicago				x	x			x												
6. Columbia				x				x						x		x	x			
7. Cornell (3)				x	x			x												
8. Dartmouth	x		60,000												x					
9. Emory (3)	x		500+	x							x	x	x		x	x	x	x	x	Political Cartoons
10. Florida				x													x			
11. Hawaii	x		12,000												x	x				
12. Illinois (2)				x				x					x	x	x	x				Transparencies
13. Indiana				x												x				
14. Johns Hopkins				x		x														
15. Kent State				x																Photo Album
16. Louisiana State (3)	x	3400			x							x			x	x				Glass Plate Negatives
17. Maryland (7)	x		29,000		x									x	x	x			x	Pamphlets, Postcards
18. MIT				x	x															
19. National Agricul. Library				x	x			x									x			Government Reports
20. National Library Canada				x																Electronic Formats
21. New Mexico				x											x					
22. Northwestern (2)				x										x	x					
23. Penn State (2)	x		330,000	x	x		x			x		x			x					
24. Smithsonian				x	x															
25. Tennessee	x	27 c. ft			x	x	x				x	x	x		x					
26. Toronto				x	x															
27. Wisconsin				x	x															
28. VPI & SU	x						x		x	x		x	x	x	x	x		x		
29. Yale				x	x															
Totals	**10**			**21**	**15**	**4**	**5**	**6**	**2**	**4**	**3**	**7**	**6**	**7**	**14**	**10**	**4**	**2**	**2**	

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INSTITUTIONAL PROFILE: HARDWARE AND IMAGING

	HARDWARE										IMAGING									
	(Ques. #12) HARDWARE PLATFORM				(Ques. #15) CAPTURE DEVICE						(Ques. #16) CAPTURED AS			(Ques. #17) PHOTO CD			(Ques. #18) OCR TECH			
INSTITUTION	PC	MAC	UNIX	N/A	FLATBED	SHEETFED	SLIDE	DIGITAL CAMERA	VIDEO CAPTURE	OTHER	BLK & WHITE	GRAYSCALE	COLOR	YES	NO	NO RESPONSE	YES[6]	NO	N/A	NO RESPONSE
1. Alabama	x				x						x		x		x		x			
2. Brown (3)		x	x		x		x						x	x			x	x		
3. British Columbia	x				x							x	x		x				x	
4. Case Western	x				x						x	x			x			x		
5. Chicago	x				x						x	x			x			x		
6. Columbia				x	x		x	x		x	x	x	x	x				x		
7. Cornell (3)	x		x		x						x				x			x		
8. Dartmouth		x			x							x			x			x		
9. Emory (3)				x	x		x				x	x	x	x					x	
10. Florida	x									x		x			x			x		
11. Hawaii	x				x		x				x	x	x		x				x	
12. Illinois (2)	x		x		x		x	x			x	x	x	x					x	
13. Indiana				x									x	x				x		
14. Johns Hopkins		x						x				x	x		x				x	
15. Kent State	x				x								x		x				x	
16. Louisiana State (3)	x				x						x	x	x		x		x		x	
17. Maryland (7)	x				x					x	x	x	x	x				x		
18. MIT		x			x	x					x	x			x			x		
19. National Agricul. Library	x				x	x	x	x			x	x	x		x		x			
20. National Library Canada			x												x				x	
21. New Mexico				x						x					x				x	
22. Northwestern.(2)				x												x				x
23. Penn State (2)	x				x						x				x			x		
24. Smithsonian	x		x		x							x	x		x			x		
25. Tennessee	x				x						x	x			x			x		
26. Toronto	x				x						x	x			x			x		
27. Wisconsin		x			x			x				x	x		x		x			
28. VPI & SU		x	x		x	x	x	x	x			x	x	x					x	
29. Yale	x									x	x				x			x		
Totals	**17**	**6**	**6**	**5**	**22**	**3**	**7**	**6**	**1**	**5**	**16**	**19**	**16**	**7**	**21**	**1**	**5**	**15**	**10**	**1**

INSTITUTIONAL PROFILE: SYSTEM HARDWARE COMPONENTS (Ques. #13)

INSTITUTION	CPU & AMOUNT OF RAM	CAPTURE DEVICE	STORAGE DEVICE	DISPLAY DEVICE	OUTPUT DEVICE	NUMBER OF WORKSTATIONS
1. Alabama	16 MB RAM	HP ScanJet	20 MB hard drive	Super VGA	HP DeskJet 660C	1
2. Brown (3)						
3. British Columbia	IBM 486/66 8 MB RAM	HP ScanJet	UNIX mainframe	PC's	PC's	1
4. Case Western Reserve	16 MB RAM	Xerox (XDOD) Document Capture Machine 620	Magneto optical disks	Cornerstone Accel	HP LaserJet	1
5. Chicago	64 MB RAM w/ 1GB Hard Drvie	bitonal & grayscale flatbed scanner		21" monitor	laser printer	1
6. Columbia						
7. Cornell (3)	486/33 & 486/66 w/ 16 MB RAM	XDOD	Epoch Juke Box, RAID	19" b/w Cornerstone Monitor	DocuTech	2
8. Dartmouth	40	LaCie Silverscanner	campus computing	any computer connected to Online Library	monitor	1
9. Emory (3)						
10. Florida	486/66, 8 MB RAM & Virtual Memory	Digital CPU and Minolta MI3MS 3000	Digital CPU w/ Novell 3.11 Network	Digital CPU w/ 15" monitor	Digital CPU w/ 15" monitor	1 *
11. Hawaii	8 MB RAM	2 Umax scanners 1 Microtek scanner	Microdesign SCSI Express 6.5 GB WORM jukebox	14" VGA color monitor	ACER laser jet printer (600dpi)	3 *
12. Illinois (2)	SunSparc	camera	CD, RAID	21" monitor, NEC multisync	HP DeskJet, HP Color LaserJet	1
13. Indiana						
14. Johns Hopkins		KanImage system to Power Mac	DAT tape to CD and UNIX online database	Silicon Graphics IrisIndigo		1
15. Kent State	Gateway 2000 PS 90, 8 MB RAM	HP ScanJet IIcx	Network drives (LAN), hard drive, UNIX mainframe	Gateway 2000 Vivitron 1776 monitor	HP DeskJet, 560C Color InkJet printer	1

*SEE COMMENTS SECTION

INSTITUTIONAL PROFILE: SYSTEM HARDWARE COMPONENTS. (Ques. #13) page 2

INSTITUTION	CPU & AMOUNT OF RAM	CAPTURE DEVICE	STORAGE DEVICE	DISPLAY DEVICE	OUTPUT DEVICE	NUMBER OF WORKSTATIONS
16. Louisiana State (3)	16 MB RAM	Kurzweil Scanner Microtek Scanner	Optical disk, hard drive (removable)	17" VGA monitor	HP laser printer	2
17. Maryland (7)						
18. MIT	Quadra 840 AV 64 MB RAM	Fujitsu 3096G w/ ADF	Seagate 4 GB Drives and DAT	20" Nanao Flexscan	HP 4SI MX	1
19. National Agricul. Library	Gateway 2000 80486/66, 1 GB & 16 MB RAM	Ricoh IS410, Fujitsu 3096G, and HP ScanJet 4c scanners, digital camera	Panasonic 5¼" multi-function optical drives	17" Gateway SVGA	CD-R system, HP LaserJet IV, HP DeskJet 1600C	3
20. National Library Canada	DEC Alpha 2100, 512 MB RAM		hard disk			
21. New Mexico						
22. Northwestern (2)						
23. Penn State (2)	486/33 16 MB RAM	Xerox WG-40 (XDOD)	Magneto optical disks	19" Cornerstone dual page monitor	Xerox 4030 laser printer, DocuTech	1
24. Smithsonian						
25. Tennessee		XDOD				1
26. Toronto	16 MB RAM					2
27. Wisconsin	Power Mac 8100/100, 50 MB RAM	HP ScanJet scanner, Kodak DCS 420 digital camera		Apple Multiple Scan 20 display	CD writer	1
28. VPI & SU						
29. Yale	486, 16 MB RAM	Mekel 400 XL	Jukebox - 5¼" Magneto optical disks	19" Grayscale Cornerstone	HP LaserJet III, Docutech	3

* SEE COMMENTS SECTION

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INSTITUTIONAL PROFILE: SYSTEM SOFTWARE PROGRAMS (Ques. #14)					
INSTITUTION	IMAGE CAPTURE	IMAGE PROCESSING	INDEXING	SEARCHING / RETRIEVAL	EDITING ENHANEMENT
1. Alabama	Photostyler	Graphics Workshop	None	Netscape	Photostyler
2. Brown (3)					
3. British Columbia	DeskScan II	Paint Shop Pro, Corel Photo Print, LVeiw Pro	In-House system	In-house system	
4. Case Western Reserve	XDOD - Tool to scan images	XDOD	XDOD Document Manager	XDOD - query function	XDOD
5. Chicago					
6. Columbia					
7. Cornell (3)	XDOD	XDOD	XDOD	Dienst / WEb interface / Netscape	XDOD
8. Dartmouth	LaCie Silverscanner	Adobe Photoshop 3.0	4th Dimension by Acius	any computer connected to Online Library	Adobe Photoshop 3.0
9. Emory (3)		Adobe Photoshop & Shoebox			
10 Florida	Minolta MI3MS 3000	Abobe Photoshop 3.0	Visual FoxPro	Visual FoxPro	Minotla MI3MS 3000 and Adobe Photoshop, OCR and wordprocessing
11. Hawaii	Picture Publisher & Aldus Photo Syler	Picture Publisher	Standard online catalog indexing	CARL Library System	
12. Illinois (2)		Adobe Photoshop	Microsoft Access, InMagic	Visual Basic – locally-developed	Adobe Photoshop
13. Indiana					
14. Johns Hopkins		Adobe Photoshop	WAIS		
15. Kent State	Aldus Photostyler 2.0	Aldus Photostyler and Adobe Photoshop 3.0			Aldus Photostyler and Adobe Photoshop

INSTITUTIONAL PROFILE: SYSTEM SOFTWARE PROGRAMS (Ques. #14). page 2

INSTITUTION	IMAGE CAPTURE	IMAGE PROCESSING	INDEXING*	SEARCHING / RETRIEVAL	EDITING ENHANEMENT
16. Louisiana State (3)	Kurzweil scanner, Microtek scanner	Kurzweil, Adobe Photoshop		WordPerfect, Image Pals	Adobe Photoshop
17. Maryland (7)					
18. MIT	Optix 1.0	Custom Unix programs (written at MIT)	Auto-generated image map	Web Browser based	
19. National Agricul. Library	Application Extender (AE)	AE	AE, Windows Personal Librarian (WPL) 3.0	WPL 3.0	Text - WordPerfect, Images - AE
20. National Library Canada	UNIX		WAIS		
21. New Mexico				Alpha 4	
22. Northwestern (2)					
23. Penn State (2)	XDOD	XDOD	XDOD	XDOD	XDOD
24. Smithsonian					
25. Tennessee	XDOD	XDOD	XDOD	XDOD	XDOD
26. Toronto	XDOD	XDOD and ScanFLX	XDOD	XDOD	XDOD and ScanFLX
27. Wisconsin					
28. VPI & SU	Kodak acquire module plug-in	Adobe Photoshop 3.0	Adobe PDF for Workgroups	Adobe PDF for Workgroups	Adobe Photoshop 3.0
29. Yale	XDOD	XDOD, Amitech Turboscan, IPT Scan Optimizer	XDOD	XDOD	XDOD

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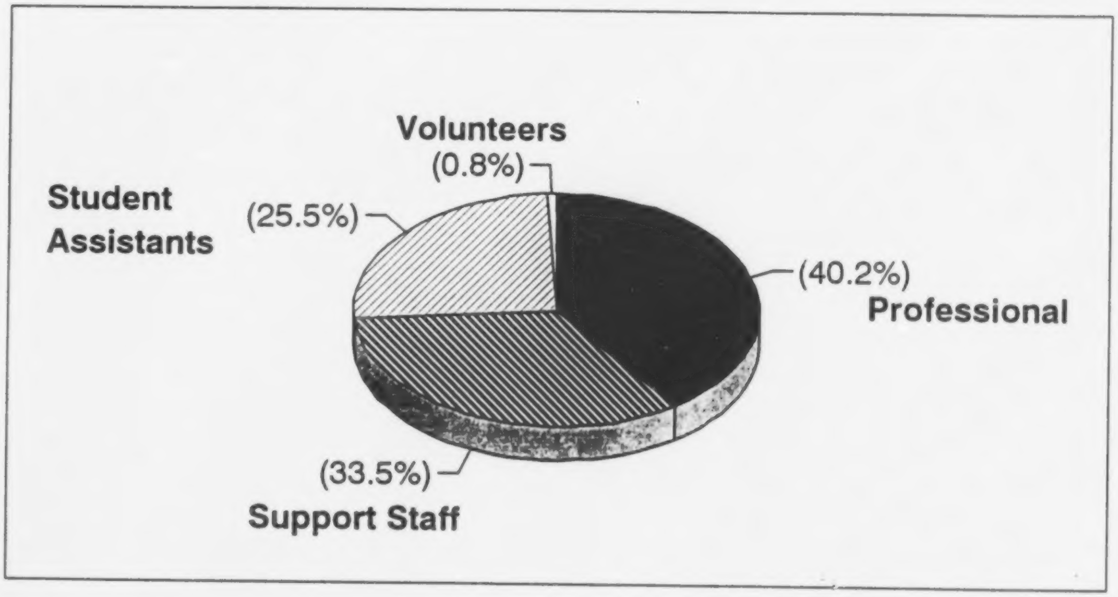
INSTITUIONAL PROFILE: STORAGE AND MANAGEMENT

	(Ques. #21) STORAGE DEVICE						(Ques. #23) STORAGE MGMT SYSTEM			(Ques. #24) CREATE BACKUPS			(Ques. #25) REFRESHING MIGRATION			(Ques. #25a) PERMANENT ARCHIVAL COPY			
INSTITUTION	HARD DRIVE	MAGNETIC TAPE	CD-ROM	OPTICAL DISK	WORM DISK	OTHER	YES	NO	NO RESPONSE	YES	NO	NO RESPONSE	YES	NO	NO RESPONSE	YES	NO	N/A	NO RESPONSE
1. Alabama	x							x		x				x			x		
2. Brown (3)	x							x		x				x			x		
3. British Columbia	x							x			x			x			x		
4. Case Western	x			x			x			x			x			x			
5. Chicago			x						x	x				x			x		
6. Columbia	x							x			x			x		x			
7. Cornell (3)	x		x	x			x			x				x		x			
8. Dartmouth						x		x		x				x			x		
9. Emory (3)	x		x					x		x				x			x		
10. Florida	x	x	x					x		x			x			x			
11. Hawaii		x			x		x			x				x		x			
12. Illinois (2)	x		x					x		x				x		x	x		
13. Indiana			x					x		x				x		x			
14. Johns Hopkins	x	x	x					x		x			x			x			
15. Kent State	x	x						x		x				x			x		
16. Louisiana State (3)	x		x	x		x		x		x				x		x			
17. Maryland (7)									x		x			x			x		
18. MIT	x	x						x			x				x		x		
19. National Agricul. Library			x	x				x		x				x		x			
20. National Library Canada	x							x		x				x				x	
21. New Mexico			x						x	x			x			x			
22. Northwestern (2)	x							x		x		x		x	x	x			x
23. Penn State (2)	x			x				x			x			x			x		
24. Smithsonian	x	x						x		x				x			x		
25. Tennessee				x				x		x				x			x		
26. Toronto				x				x			x			x			x		
27. Wisconsin	x	x	x					x		x				x		x			
28. VPI & SU	x							x		x					x	x			
29. Yale	x	x		x			x			x				x		x			
Totals	**20**	**8**	**11**	**8**	**1**	**2**	**4**	**22**	**3**	**23**	**6**	**1**	**4**	**23**	**3**	**15**	**14**	**1**	**1**

TOTAL FTE STAFFING (ALL LEVELS) ENGAGED IN DIGITIZING PROJECTS



PROJECT SYNOPSES

Institution Name:	**UNIVERSITY OF ALABAMA**
Contact:	P. Toby Graham, Ph.D. Student, School of Library and Information Studies William Stanley Hoole Special Collections Library Phone: (205) 348-0500; E-mail: pgraham3@ualvm.ua.edu
Project Title:	C.S.S. Alabama Digital Collection
Project Scope:	(Pilot project) All C.S.S. Alabama archival materials, 100 pieces, of correspondence, log books, photographs, pamphlets, newspaper articles, b/w and color prints, construction plans, books and paintings that are free of copyright restrictions.
Project Goals:	To explore the possibilities of the World Wide Web as an access medium for textual and graphical library resources; to create an educational resource attractive and relevant to wide ranges of ages and educational levels; to create an awareness of the scope and nature of resources available at the W.S. Hoole Special Collections Library and libraries of its type.
Begin/End Dates:	August 1995–May 1996
Funding Source:	Alabama Power (external)
Print-On-Demand Services:	No
Internet Address:	Not available

Institution Name:	**BROWN UNIVERSITY**
Contact:	Eric C. Shoaf, Head, Preservation Department, John Hay and Art Slide Library Phone: (401) 863-7354; Fax: (401) 863-1272; E-mail: eric.shoaf@brown.edu
Project Titles:	(1) Lovecraft Project; (2) Digital Images from the Art Slide Library; (3) Military Collection
Project Goals/ Scope:	(Pilot projects 1-3) To provide information about the Military Collection and Lovecraft Collection; Images from the Art Slide Library— to provide review materials for an Art History course. Source documents identified for the three projects include: books; music scores; manuscripts; periodicals; log books, diaries, ledgers, etc.; newspapers; scrapbooks; art work/objects, etc.; maps and other flat work; photographs, and slides.
Begin/End Dates:	(2) September–December 1995 (Art Slide Project); (1,3) not yet running.
Funding Source:	External and internal funding
Print-On-Demand Services:	No
Internet Address:	Unknown

Institution Name: **University of British Columbia**

Contact: Suzanne Dodson, Manager, Facilities & Preservation
Phone: (604) 822-3858; Fax: (604) 822-3893; E-mail: sdodson@unixg.ubc.ca

Project Title: University of British Columbia Historical Photograph Imaging Project

Project Scope: (Pilot project) To digitize c. 300,000 images from photographs and negatives.

Project Goals: To digitize these and mount them on our web site.

Begin/End Dates: September 1995–

Funding Source: C.A.A. (external) and internal funding

Print-On-Demand Services: Yes, contact: Chris Hives, University Archivist

Internet Address: http://library.ubc.ca

Institution Name: **Case Western Reserve University**

Contact: Sharlane Gubkin, Head, Preservation Department, University Library
Phone: (216) 368-3465; Fax: (216) 368-3669; E-mail: sxg7@po.cwru.edu

Project Title: No formal name

Project Scope: (Pilot project) To scan high-quality images of all pages of brittle library books and pamphlets of 100 pages or less, coming to the (Preservation) Department from Circulation or Special Collections, and which were previously photocopied in-house.

Project Goals: To provide access to scholarly material (books, music scores, maps and other flat work) too fragile to be loaned, and also to provide the library with one archival circulating paper replacement copy that can be printed-on-demand if lost, damaged, or stolen. To eventually connect the system to the network and the WWW for global access of reproductions of brittle materials published early enough to not infringe on the copyright requirement, and to therefore aid in a small way to the worldwide preservation effort.

Begin/End Dates: December 1993–November 1994

Funding Source: Internal

Print-On-Demand Services: Yes, contact: Sharlane Gubkin, Head, Preservation Department

Internet Address: Unknown

Institution Name: **UNIVERSITY OF CHICAGO**

Contact: Sherry Byrne, Preservation Librarian, University of Chicago Library
Phone: (312) 702-9313; Fax: (312) 702-6623; E-mail: sbyr@midway.uchicago.edu

Project Title: Preservation of Materials on the Ancient Near East and Mediterranean World

Project Scope: (Pilot project) The Library proposes to digitize 100 volumes of published research materials on the history, art, and archaeology of the ancient Near East and the ancient Mediterranean world. Digitization will focus primarily on works such as archaeological reports of excavation sites and catalogs of collections of antiquities published between 1880 and 1940 that are heavily illustrated with line art and halftone images. Selection for the project will target brittle volumes with halftone illustrations of ancient art and artifacts.

Project Goals: To capture 100 deteriorated volumes (books and periodicals) in digital form (approximately 30,000 images); investigate problems of combining text images and halftone illustrations; provide enhanced access to digital images on the Internet.

Begin/End Dates: July 1, 1995–June 30, 1998

Funding Source: National Endowment for the Humanities and internal cost share contribution

Print-On-Demand Services: Unknown

Internet Address: No information available

Institution Name: **COLUMBIA UNIVERSITY**

Contact: Janet Gertz, Director for Preservation, University Libraries
Phone: (212) 854-5757; Fax: (212) 222-0331; E-mail: gertz@columbia.edu

Project Title: Oversize Color Images Project

Project Scope: (Pilot project) Investigate ways of digitizing oversize color illustrations of books (especially maps) and then provide online access to digital versions of the entire volumes with text in black and white and illustrations in color.

Project Goals: To create a mechanism for preserving (on film) and making accessible (online) volumes which could not be satisfactorily preserved and accessed using traditional methods due to the presence of color and oversize illustrations.

Begin/End Dates: June 1994–December 1995

Funding Source: Commission for Preservation and Access and internal

Print-On-Demand Services: No

Internet Address: http://www.cc.columbia.edu/imaging/html/largemaps/oversized.html

Institution Name: **CORNELL UNIVERSITY**

Contact: Anne R. Kenney, Associate Director, Department of Preservation and Conservation
Phone: (607) 255-6875; Fax: (607) 255-7493; E-mail: ark3@cornell.edu

Project Titles: (1) Digital to Microfilm Conversion: A Demonstration Project; (2) Making of America Project; (3) CORE Historical Literature of Agriculture Project

Project Scope: (1) Agricultural literature; (2) 19th century U.S. serials and monographs—cooperative project with the Univ. of Michigan; (3) Core agricultural literature

Project Goals: (1) To scan 450,000 pages and create Computer Output Microfilm that meets preservation standards; (2) to scan 1.5 million pages and create a distributed digital library accessible via the Web; (3) to scan 300,000 pages and produce paper facsimiles.

Begin/End Dates: (1) April 1994–September 1996; (2) January 1995–December 1996; (3) April 1, 1995–March 30, 1996

Funding Source: (1) National Endowment for the Humanities; (2) Mellon Foundation; (3) N.Y. Department of Education, Title II-C

Print-On-Demand Services: Yes, contact: Anne R. Kenney, Associate Director, Department of Preservation. For Mann Library materials contact: Marjorie Proctor, Manager, Preservation and Conservation. Negotiations with other campus units to supply services underway.

Internet Address: http://library.cit.cornell.edu

NOTE: See published reports for information on Cornell's earlier projects, which resulted in the scanning and production of paper facsimiles for New York State Local History Sources (600 volumes), classic mathematics texts (700 volumes), and a variety of other topics.

Institution Name: **DARTMOUTH COLLEGE**

Contact: Barbara Sagraves, Preservation Services Librarian, Baker Library, Preserv Svcs Dept
Phone: (603) 646-2458; Fax: (603) 646-3702; E-mail: barbara.sagraves@dartmouth.edu

Project Title: "College Life A-Z" for the Photographic Records Catalog Online Library of the Dartmouth College Library Special Collections (subset of records)

Project Scope: (Pilot project) To scan 4"x5" B/W contact prints (60,000 items)

Project Goals: To provide scanned images for each record "College Life A-Z"

Begin/End Dates: 1992–

Funding Source: Annual budget (internal)

Print-On-Demand Services: No

Internet Address: http://www.dartmouth.edu

Institution Name: **EMORY UNIVERSITY**

Contact: Marcia A. Watt, Preservation Officer, Woodruff Library, Preservation Office
Phone: (404) 727-0306; Fax: (404) 727-0053; E-mail: libmaw@emuvm1.cc.emory.edu

Project Titles: (1) No formal name–University Archives; (2) Senator Nunn Archives Image Access Project; (3) No formal name–Charles Palmer Collection

Project Scope: (Pilot project) (1) To digitize sample photographs (initially 100-200 images) from the University Archives; (2) To digitize 500+ pieces consisting of newspapers, scrapbooks (clippings), artwork, photographs, slides, microforms, video, sound recordings, and political cartoons from the Senator Sam Nunn archival collection; (3) (Pilot project) To digitize 100-200 photographs from the Charles Palmer Collection of Urban Renovation.

Project Goals: To eventually digitize the most heavily used items or the entire collection.

Begin/End Dates: (1) January 1996–June 1996 (Pilot), begin fuller project Fall 1996; (2) January–June 1996; (3) January 1996–June 1996 (Pilot), begin fuller project Fall 1996

Funding Source: (1) Internal; (2) Unknown; (3) Internal

Print-On-Demand Services: (1-3) Not at this time

Internet Address: (1-3) Not yet available

Institution Name: **UNIVERSITY OF FLORIDA**

Contact: Erich J. Kesse, Chair, Preservation Department, George A. Smathers Libraries.
Phone: (904) 392-6962; Fax: (904) 392-7251; E-mail: erikess@nervm.nerdc.ufl.edu

Project Title: Caribbean Newspaper Microfilm Imaging Project

Project Scope: (Pilot and cooperative project with Duke University and the University of Texas–Austin to make Latin American resources available). A newspaper microfilm conversion project–converting two Caribbean newspaper titles, LE NOUVELLISTE (Haiti) and DIARO DE LA MARINA (Cuba), representing 250,000 microfilm frames.

Project Goals: To provide digital access with appropriate trilingual indexing to Caribbean newspapers; implement workflow and procedural guidelines established by Yale University for microfilm scanning and define changes related to hardware and software differences; define newspaper indexing structure and practice alternate to that defined by the Virginia State Library using SGML.

Begin/End Dates: August 1994–January 1997

Funding Source: Andrew Mellon Foundation with limited internal funding for personnel resourc associated with project management

Print-On-Demand Services: No

Internet Address: Not yet available

Institution Name: **UNIVERSITY OF HAWAII**

Contact: Jean Ehrhorn, Associate University Librarian, University of Hawaii Library.
Phone: (808) 956-2472; Fax: (808) 956-5968; E-mail: ehrhorn@hawaii.edu

Project Title: Trust Territory of the Pacific Islands Archives Photo-Digitization Project

Project Scope: (Pilot project) To digitize approximately 12,000 photographs and slides from the TTPI Archives.

Project Goals: To preserve photographs in digital form and provide online access to patrons.

Begin/End Dates: October 1991–December 1993

Funding Source: Department of Education, Title II-C grant

Print-On-Demand Services: Yes, contact: Karen Peacock, Pacific Curator. If duplicate photograph is requested, contact Tom Brown, Photographer, in the Preservation Department. Fees are charged.

Internet Address: Not available

Institution Name: **UNIVERSITY OF ILLINOIS–URBANA CHAMPAIGN**

Contact: Beth Sandore, Coordinator for Imaging Projects, Main Library
Phone: (217) 333-2592; Fax: (217) 333-2214; E-mail: sandore@uiuc.edu

Project Titles: (1-2) UIUC/Follett Academic Imaging Project

Project Scope: (1) Selection of approximately 100 images from each of the two collections: Motley Collection of Theater and Costume Design; Illinois Historical Maps (Pilot project). Material types include: 35mm slides made from original works of art and small maps; 4"x5" color transparencies made from maps; maps (up to 11"x17"–color and B/W); theater and costume designs, primarily color and some B/W pencil drawings; (2) Selection of approximately 1500 images from various collections in the Library and the University Archives, including periodicals, slides, and photographs from the Lorado Taft papers, and ads from the D'Arcy Advertising Archive.

Project Goals: (1) To explore various methods of image capture and conversion to digital format; preservation; increased access to underutilized materials; determine cataloging and indexing needs. (2) To explore the use of Kodak Photo CD for image conversion to digital format; preservation; increased access to underutilized materials; determine cataloging and indexing needs.

Begin/End Dates: (1) September 1995–March 1996; (2) September 1995–January 1996

Funding Source: (1) Follett Corporation (external); (2) Internal

Print-On-Demand Services: (1-2) No

Internet Address: (1-2) Not yet available

Institution Name: **INDIANA UNIVERSITY**

Contact: Lorraine Olley, Head, Preservation Department, Main Library
Phone: (812) 855-6281; Fax: (812) 855-2576; E-mail: olley@indiana.edu

Project Title: Somalia Posters

Project Scope: To digitize 60+ color posters (on slides) printed in Somalia.

Project Goals: To preserve images and make them available via the WWW.

Begin/End Dates: June 1995–October 1995

Funding Source: Department of Education, Title II-C

Print-On-Demand Services: No

Internet Address: http://www.indiana.edu/~libpres/posters.html

Institution Name: **JOHNS HOPKINS UNIVERSITY**

Contact: Cynthia Requardt, Kurrelmeyer Curator of Special Collections, Eisenhower Library
Phone: (410) 516-5493; Fax: (410) 516-8596; E-mail: cynthia.requarat@jhu.edu

Project Title: No formal name

Project Scope: To digitize 26,400 pieces of 19th century American music (131,000 images).

Project Goals: To create online access to reduce stress on originals and increase access.

Begin/End Dates: January 1995–June 1997

Funding Source: National Endowment for the Humanities and private funding

Print-On-Demand Services: No. Users can download and print locally

Internet Address: http://musicbox.mse.jhu.edu

Institution Name: **KENT STATE UNIVERSITY**

Contact: Cara Gilgenbach, Graduate Assistant, Dept of Special Collections & Archives
Phone: (216) 672-2270; Fax: (216) 672-4811; E-mail: cgilgenb@phoenix.kent.edu

Project Title: Queen Marie of Romania, Photoalbum: Preservation Imaging Project

Project Scope: To digitize one photoalbum of pre-World War I vintage (195 pages of photographs). Album is very brittle. Use of actual album will quickly lead to its destruction.

Project Goals: Scan entire album, load images on the WWW; eliminate/minimize use of actual album; increase awareness/access to unique material.

Begin/End Dates: August 1995–December 1995

Funding Source: Internal

Print-On-Demand Services: No

Internet Address: http://www.library.kent.edu/exhibits/4may95/marie.html

Institution Name: **LOUISIANA STATE UNIVERSITY**

Contact: (1,3) Merle Suhayda, Lab Coordinator, Electronic Imaging Lab, Special Collections
Phone: (504) 388-6551; E-mail: notmrs@lsuvm.sncc.lsu.edu
(2) Reni Zietz, Manager of Image Resources, LSU Libraries, Special Collections
Phone: (504) 388-6555; E-mail: notrrz@lsuvm.sncc.lsu.edu

Project Titles: (1) CD-ROM–B.F. French; (2) CD-ROM–B.F. French II; (3) Andrew Lytle Photographic Collection (CD-ROM)

Project Scope: (1) (Pilot Project) To digitize a text (book) collection); (2) To digitize text collection; (3) To digitize photographs of a 19th century Baton Rouge photographer from the following source documents: books, scrapbooks, photographs, slides, glass plate negatives, and copy prints.

Project Goals: (1-2) To digitize text; (3) To create a CD-ROM of the collection

Begin/End Dates: (1) 1991–1995; (2) 1994–; (3) Summer 1995–Summer 1996

Funding Source: (1-3) Grant funding

Print-On-Demand Services: (1-3) Yes, contact: Judy Bolton, Head, Public Services

Internet Address: Not available

Institution Name: **UNIVERSITY OF MARYLAND**

Contact: Evelyn Frangakis, Head, Preservation Department, McKeldin Library
Phone: (301) 405-9343; Fax: (301) 314-9971; E-mail: ef34@umail.umd.edu

Project Titles: (1) Baltimore News American photographs; (2) National Trust for Historic Preservation post cards; (3) Pioneer Broadcast Archives transcription discs and photographs; (4) maps; (5) Maryland slavery pamphlets; (6) French Revolution pamphlets; (7) Chesapeake Bay materials

Project Scope/Goals: These are seven institutional projects for which we have done investigative planning. The maps project may be a pilot project; the others are collections that we simply want to capture digitally. Cooperative digital efforts (projects 4-7) involve the University of Delaware, the Smithsonian Institution Libraries, Johns Hopkins University, Georgetown University and National Agricultural Library.

Begin/End Dates: (1-7) In the planning stages

Funding Source: Unknown

Print-On-Demand Services: Unknown

Internet Address: Unknown

Institution Name: **MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

Contact: Keith Glavash, Head of Document Services
Phone: (617) 253-5667; Fax: (617) 253-1690; E-mail: kglavash@mit.edu

Project Title: Computer Science Technical Report Project (CS-TR Project)

Project Scope: (Pilot project) To scan 2,500 books representing 175,000 images. This is a cooperative project (Corporation for National Research Initiatives) involving the following institutions: University of California-Berkeley, Cornell University, Carnegie Mellon University, Stanford University.

Project Goals: High resolution scanning and online dissemination.

Begin/End Dates: July 1, 1992–May 31, 1996

Funding Source: U.S. Advanced Research Projects Agency (ARPA)

Print-On-Demand Services: Yes, contact: Bill Mayer, Document Resources Librarian

Internet Address: http://cstr-www.lcs.mit.edu/cstr-www

Institution Name: **NATIONAL AGRICULTURE LIBRARY**

Contact: Judith A. Zidar, Coordinator, NATDP, Information Systems Division
Phone: (301) 504-5853; Fax: (301) 504-7473; E-mail: jzidar@nalusda.gov

Project Title: National Agricultural Text Digitizing Program

Project Scope: A cooperative effort involving the United States Agricultural Information Network (USAIN), Kansas State University, American Society of Agronomy, and the American Agricultural Economics Association (AAEA) Foundation. Project consists of the conversion of deteriorating print collections to electronic page images, which are linked to bibliographic records for retrieval. Digital materials are distributed on CD-ROM or over the Internet. Print collections include unpublished government materials donated to NAL, professional association journals, and USDA publications (books, periodicals, microforms, and typewritten government reports).

Project Goals: To preserve and distribute the digitized materials in an accessible form, to miniaturize parts of the collection, and to utilize the digitized materials for other library services, such as interlibrary loan.

Begin/End Dates: January 1992–

Funding Source: Federal appropriations; federal grants and cooperator funds

Print-on-Demand Services: Yes, contact: Carol Ditzler, Head, Document Delivery Services Branch

Internet Address: http://www.nalusda.gov

Institution Name: **NATIONAL LIBRARY OF CANADA**

Contact: Doug Hodges, Database Policy and Planning Officer, Information Resource Mgt
Phone: (613) 947-5888; Fax: (613) 996-7941; E-mail: doug.hodges@nlc-bnc.ca

Project Title: Electronic Publications Pilot Project (EPPP)

Project Scope/Goals: (Pilot project) To identify and understand the issues that libraries and NLC in particular will encounter in handling online collections; to foster the transfer of knowledge about and the familiarity with online documents to a broader base of NLC staff involved in the operations of the library (selection, acquisitions, cataloging, collection management, preservation, reference); to help NLC to determine longer-term policies on the handling of e-publications, and to recommend organizational responsibilities within NLC for handling these documents; to provide input to NLC requirements definition and planning documents, in particular for the development and operation of the AMICUS[1] "Manage Electronic Publications" module; to gain experience and expertise in some of the technologies and technology issues involved with e-publications and e-publishing, in particular, e-publishing on the Internet.

In terms of coverage of e-publications on the NLC e-publications server, the EPPP included as the highest priority: a small number of Canadian online electronic journals, initially selected from the Canadian listings in Directory of Electronic Journals, Newsletters and Academic Discussion Lists, 3d ed., 1993, by Michael Strangelove and Diane Kovacs; any Canadian titles stored in the NLC Gopher; additional Canadian titles selected by reason of format (e.g., HTML); and "Home page" and "structure" information on the NLC e-publishing server. The EPPP excluded any e-publications for which NLC could not obtain adequate client freeware for viewing the documents. For purposes of this pilot only, the EPPP excluded any e-publications for which the NLC could not obtain permission from the e-publisher to mount the title on the NLC server.

[1] AMICUS is the NLC's new bibliographic information system.

Begin/End Dates: June 1994–July 1995

Funding Source: Internal

Print-On-Demand Services: No

Internet Address: http://www.nlc-bnc.ca/eppp/e3pe.htm (English)
http://www.nlc-bnc.ca/eppp/e3pf.htm (French)

Institution Name: **UNIVERSITY OF NEW MEXICO**

Contact: Jan Barnhart, Associate Director, Development Officer, General Library
Phone: (505) 277-7175; Fax: (505) 277-6019; E-mail: jbarnhart@unm.edu

Project Title: John Gaw Meem Collection Digitization Project

Project Scope: To digitize approximately 1150 photographs of Ansel Adams, Laura Gilpin, Tyler Dingee, Ernest Knee, and Vierra from the John Gaw Meem Collection.

Project Goals: To produce a CD.

Begin/End Dates: Summer 1995–Spring 1996

Funding Source: Internal

Print-On-Demand Services: No

Internet Address: None

Institution Name: **NORTHWESTERN UNIVERSITY**

Contact: Richard Frieder, Head, Preservation Department
Phone: (708) 491-4672; Fax: (708) 491-8306; E-mail: frieder@nwu.edu

Project Titles: (1) RLG Digital Image Access Project (DIAP)–Siege and Commune of Paris Collection; (2) World War II Posters

Project Scope/Goals: (1) (Pilot project) A cooperative project with eight members of RLG to each digitize 1000 images on the topic of "the urban landscape." Northwestern's project is to digitize photographs (1000), maps and other flat work (200), thereby preserving and improving access to them. The project is also seen as a springboard towards further projects. RLG's goals were to experiment with doing this kind of project on a consortial basis, and especially to explore the design of cataloging and access software. (2) (Pilot project) To digitize 250 posters and make them available on the WWW and on CD. Will use the project as an opportunity to further explore the use of digital technology in the context of preserving and increasing access to collection materials.

Begin/End Dates: (1) Spring 1994–Spring 1995; (2) Summer 1995–?

Funding Source: (1) Unknown; (2) Internal

Print-On-Demand Services: (1-2) No

Internet Address: (1) http://www.library.nwu.edu/spec/siege (2) Unknown

Institution Name: **PENNSYLVANIA STATE UNIVERSITY**

Contact: Sue Kellerman, Preservation Librarian, Access Services Dept, Pattee Library
Phone: (814) 865-1858; Fax: (814) 863-7293; E-mail: lsk@psulias.psu.edu

Project Titles: (1) Digital Preservation Project; (2) Brittle Book and Out-of-Print Preservation Replacement Program

Project Scope/Goals: (1) Designed to test the feasibility and improved accessibility features of digital technology as a preservation and access option for archival materials. Two archival collections (the Steel Workers' Organizing Committee Papers and the Pennsylvania Agricultural County Agent Report collection) representing over 330,000 images were identified for the project. (2) Designed to utilize scanning technology as a means to reproduce new paper copy facsimiles of original brittle and out-of-print library materials.

Begin/End Dates: (1) June 1992–; (2) August 1995–

Funding Source: (1) Commission on Preservation and Access, Xerox Corp and Penn State University; (2) Internal

Print-On-Demand Services: (1-2) Yes, contact: Sue Kellerman, Preservation Librarian

Internet Address: (1-2) Not yet available

Institution Name: **SMITHSONIAN INSTITUTION LIBRARIES**

Contact: Thomas Garnett, Head, Systems Office
Phone: (202) 357-2163; Fax: (202) 786-2866; E-mail: sil.tgarnett@ic.si.edu

Project Title: Scholarship Online

Project Scope: (Pilot project) To digitize Smithsonian publications, starting with the Bureau of American Ethnology Annual Reports.

Project Goals: To create an online file of the BAE Annual Reports.

Begin/End Dates: 1996–

Funding Source: External

Print-On-Demand Services: No

Internet Address: http://www.sil.si.edu

Institution Name: **UNIVERSITY OF TENNESSEE**

Contact: Joe C. Rader, Head, University Archives & Preservation
Phone: (423) 974-6899; Fax: (423) 974-4259; E-mail: jcrader@utk.edu

Project Title: Galston-Busoni Archives

Project Scope: (Pilot project) To digitize one specific collection of materials (manuscripts) from Special Collections. Source documents included: books, music scores, manuscripts, newspapers, scrapbooks, art work, and photographs.

Project Goals: To test the feasibility for preservation and access to the collection.

Begin/End Dates: 1992(?)–1994

Funding Source: Commission on Preservation and Access (partially)

Print-On-Demand Services: Yes, contact: Joe C. Rader, Head, University Archives & Preservation

Internet Address: None

Institution Name: **UNIVERSITY OF TORONTO**

Contact: Karen Turko, Head, Preservation Services
Phone: (416) 978-7119; Fax: (416) 971-2819; E-mail: turko@vax.library.utoronto.ca

Project Title: University of Toronto Back In Print Project

Project Goal: To build a digital library with extensive access.

Project Scope: Project involves scanning books.

Begin/End Dates: January 1994–

Funding Source: Library budget and fundraising

Print-On-Demand Services: Yes, contact: Karen Turko, Head, Preservation Services

Internet Address: None

Institution Name: **VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY**

Contact: Gail McMillan, Director, Scholarly Communications Project, and
Head, Special Collections Department, University Libraries
Phone: (540) 231-9252; Fax: (540) 231-3694; E-mail: gailmac@vt.edu

Project Title: VIVA Project (Virtual Library of Virginia)

Project Scope/Goals: (Pilot project) A cooperative project involving doctoral granting institutions in Virginia: VPI & SU, George Mason University, Old Dominion University, University of Virginia, and the Virginia Commonwealth University. Source documents included in the digitizing efforts include: manuscripts, blueprints, log books, diaries and ledgers, scrapbooks, art work/objects, maps and other flat work, photographs, slides, and video.

Begin/End Dates: Unknown

Funding Source: Unknown

Print-On-Demand Services: Yes, contact: Gary Worley, Director of Production Services, Information Systems;
E-mail: gworley@vt.edu

Internet Address: http://scholar.lib.vt.edu

Institution Name: **UNIVERSITY OF WISCONSIN–MADISON**

Contact: Sandra Paske, Preservation Department, Memorial Library
Phone: (608) 262-2332; E-mail: paske@doit.wisc.edu

Project Title: John Nolen's Madison: A Model City

Project Scope: (Pilot project) To reformat a monograph with fold-out maps.

Project Goals: To digitize a monograph, produce a CD-ROM and WWW version of the book.

Begin/End Dates: January 1995–November 1995

Funding Source: Internal

Print-On-Demand Services: No

Internet Address: http://www.library.wisc.edu/etext/ModelCity/ModelCity.html

Institution Name: **YALE UNIVERSITY**

Contact: Paul Conway, Head, Preservation Department
Phone: (203) 432-1714; Fax: (203) 432-7231; E-mail: paul.conway@yale.edu

Project Title: Project Open Book

Project Scope/Goals: (Pilot project) To convert 35mm preservation microfilm of 10,000 volumes to digital images with complex indexing and WWW access.

Begin/End Dates: June 1991–

Funding Source: Commission on Preservation and Access, National Endowment for the Humanities and Yale University (significant internal resources supplemented by grants)

Print-On-Demand Services: Yes, online at WWW page

Internet Address: http://www.library.yale.edu/pres/presyale.html

SPEC

SYSTEMS AND PROCEDURES EXCHANGE CENTER

FUNDING PROPOSALS

ASSOCIATION OF RESEARCH LIBRARIES OFFICE OF MANAGEMENT SERVICES

Summary of the Project

John Hopkins

The Milton S. Eisenhower Library of the Johns Hopkins University proposes to make accessible on the Internet the Lester S. Levy Collection of Sheet Music. The collection consists of 26,400 pieces of popular American music from 1780 to 1960.

We plan to create an online database, Sheet Music Online, which contains the music and lyrics, color cover, and a searchable index record for each piece of music. The database will be mounted on a server in the Eisenhower Library and accessible through World Wide Web to anyone having a direct connection to the Internet. Sheet Music Online will be viewed using the popular graphical-user-interface Mosaic which can accommodate text, images, and sound in the same document.

The Levy Collection is an important resource for the study of the history and social life in America as portrayed in its musical heritage. It is especially strong in music of the nineteenth century. The collection contains a selective but representative slice of American popular music and gives musicologists an insight into American music of this period. The lyrics and the cover images are especially rich resources for social historians. The cover images in particular form a pictorial record of the customs, fashions, hobbies, and humor of their times. Famous events as well as obscure ones are illustrated and sung about. Architecture, sports, transportation, and elections are among the topics for which this collection provides insight and documentation.

The Levy Collection is frequently used by a variety of scholars. Musicologists find the Levy Collection an excellent resource for documenting the development of American music and illustrating its diversity while art historians, social historians, and researchers in American popular culture, women's studies and African-American history use the collection as well.

At present, the Levy Collection is available only to researchers who visit the Eisenhower Library. A card index gives quick access to the composer, lyricist, title, first line, publisher and lithographer of each piece, but it gives no subject access. This is something that both musicologists and historians have asked for. The in-house card index gives no access to remote users.

A database, such as we propose to create, would provide: online access to the Levy Collection, including subject access; an index with at least 9 access points to 26,400 pieces of popular American music; images of the music and lyrics as well as the illustrated color covers; preservation of the collection by allowing researchers to browse through the collection online rather than through the actual sheets; and access to the collection for any user anywhere who can use the Internet. We will also update the OCLC and RLIN records about the Levy Collection to include information on Sheet Music Online and produce a brochure that describes the database and how to gain access to it. The project will begin in January 1995 and be completed in November 1996.

The cost to mount and index each piece of music is $20.48. This figure compares favorably with the cost to do original cataloging on one item and yet our project will provide an online copy of the music as well as the bibliographic data. We are requesting $331,561 from the National Endowment for the Humanities.

5/31/94

Due to space restrictions, the full report cannot be included here. Please contact the institution directly for information on obtaining copies.

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Smithsonian Institution Libraries

MEMORANDUM February 23, 1995

TO: Ross Simons, Assistant Provost for the Sciences

FROM: Barbara J. Smith, Director

SUBJECT: Proposal

PROJECT:
Libraries are at a crossroads with declining funds and increasing demands for more information from a larger user community. How can the Smithsonian Institution Libraries (SIL) make its materials available to a wider circle of national and global researchers while balancing the issues of handling, preservation and costs? This pilot project is an answer to this problem.

SIL proposes a project to mount texts of scholarly importance on a SIL World Wide Web Server to provide full access to the content and form of the text.

Specifically, SIL will purchase needed hardware and software to establish a SIL World Wide Web server (WWW) and will digitize two Smithsonian Institution publications from the Bureau of American Ethnology series for distribution over the World Wide Web. SIL seeks **$35,127** from the Endowment to accomplish this project which will serve as the groundwork for future electronic republication efforts.

The text and images will be scanned at the highest possible resolution. The text will be made available both as a scanned digital image to preserve its original printed appearance and converted to machine-readable character to enable full-text searching and indexing. SIL subject specialists will add value to the texts by establishing hypertext links between key concepts in the text and with other World Wide Web resources. The texts will be available to a world-wide audience through a variety of Internet access points including WWW, gopher, and FTP.

AMOUNT REQUESTED:

$35,500

MATCHING RESOURCES:

SIL may also seek funding from the Society.

ADMINISTRATIVE APPROVAL: ____________________
Barbara J. Smith

PRINCIPAL INVESTIGATOR: ____________________
Thomas Garnett

ATTACHMENTS:
Proposal text, Proposal Budget

Smithsonian Institution Libraries

Scholarship Online:

Electronic Republishing Project for Access and Preservation

Background and Rationale:

The Smithsonian Institution Libraries (SIL), through its eighteen branch libraries and centralized collections management, technical, and administrative activities, provides a wide range of research support services to the Smithsonian and broader scholarly community. Among its 1.2 million volumes, SIL holds many extremely valuable scholarly resources that are difficult to find elsewhere. Many of these items are out of print and were not widely disseminated when they were in print. With improvements in the nation's information infrastructure it is now possible to make these treasures more widely available to an international audience. Providing access to these materials can improve the quality of research, moving library service beyond the walls of the library.

Through interlibrary loan and preservation activities, SIL shares the collections for which it is responsible. Some of these holdings are difficult to find outside of SIL and are unlikely ever to be republished in hard copy format. Researchers outside the Institution must either visit SIL physically to use these materials or, if SIL lends these materials (which is frequently not possible), must wait for them to arrive and have them for only limited periods. Some of SIL's materials are in poor condition that is worsened by each handling. Yet often these are valuable not for their artifactual value but for their content.

The World Wide Web (WWW) is the set of interconnected servers offering full multi-media hypertext access to information. The number of Web Servers has been growing exponentially . As it stands today the WWW is a wonderful scaffolding that awaits completion. While many impressive demonstration sites are available as well as several substantive scientific databases, little has been done in providing source textual material of research importance.

By making selected texts available on the WWW, SIL will not only provide greater access to users throughout the world, but also add value to them with hypertext links to ancillary resources elsewhere in the Smithsonian and on the World Wide Web.

Selection of Texts and Project Significance:

The two texts selected for this pilot project are: List of the Publications of the Bureau of American Ethnology (Smithsonian Institution Press, 1971) and Hair Pipes in Plains Indian Adornment by John C. Ewers (U.S. GPO, 1957). These out-of-print Bureau of American Ethnology (BAE) reports are of both historical and contemporary value because of the in-depth documentation of Native American history, culture and linguistics they provide. The two selected texts were chosen with the advisement of members of the Anthropology Department, National Museum of Natural History.

The continued value of BAE publications is evident today in the paper reprinting of selected texts that both the SI Press (in its series Classics of Smithsonian Anthropology) and other presses (e.g., University of Nebraska) have carried out. Requests for these publications or information from them continue to come through letters and telephone calls to the Library, the Anthropology Department's Outreach Office and American Indian Program, the Visitor Information and Associates Reception Center, and through America Online's service, Smithsonian Online. These requests are from individuals, such as scholars, teachers, students, and interested lay people as well as from organizations, including tribal groups and their schools and libraries. Contemporary Native Americans greatly value the details and description that selected publications of BAE afford them of their past.

Immediate Goals:

SIL will set up a World Wide Web server and convert the two selected texts to digital form. SIL staff will be trained in the operation and maintenance of the server as well as gain experience in managing a text digitizing project. Indexing of the full ASCII text version of the material is a fundamental component of this project to improve access to material at a level beyond that which citation based databases can provide.

Plans to Achieve Results

Installation of the World Wide Web server will be the first and key step in this project. Concurrent with the installation of the World Wide Web server, SIL staff will digitize the source materials. In the digitizing process, a number of possible procedures and formats will be explored. At the completion of the digitizing process, SIL staff will edit the electronic texts for quality control and add appropriate hypertext links to other resources.

To provide full text indexing of the ASCII text files some type of search and retrieval software is required. A variety of search and retrieval options are currently available, many of them as "freeware." SIL will implement search and retrieval software to provide full access to the publications that will be mounted on the server.

National Implications and Model Replication Potential:

For many years the model of library automation projects has been seen as the online catalog - a machine-readable database consisting of citations to source material. While this is certainly useful, the tools now exist to provide wide access to the source materials themselves and to add value to them in the process. With an increasingly information-hungry and computer-literate user community, SIL must move beyond the model of merely providing citations. SIL must move to supplying the source materials themselves. Here is where the riches of SIL lie. Access to the collection in the future will mean far more than a mere record in an online catalog, a citation in a bibliography, or a wait for interlibrary loan. Access will mean the entire text with illustrations, prints, drawings will be available to the researcher at any time.

The World Wide Web offers enormous potential for providing access to information resources for both scholars and the interested lay person. SIL's proposed electronic republishing project will serve as both a model and guide to other institutions as they begin to explore electronic access to their collections and will enable SIL to serve as a resource for other SI Offices undertaking similar programs including projects of the Seidell Committee or the Smithsonian Institution Press. This pilot project will also be a first step for SIL in providing electronic access to its own collections.

Itemized Budget:

1. Hardware/Software

After evaluating several options SIL has decided to implement a WWW server with the Unix operating system Netsite Server software using the following configuration:

Netra i20 (64mg, 6 gigabytes storage)	$18,863
Unix operating system software:	
Solaris 2.4 (included with Netra i20)	
TCP/IP Software: (included with Netra i20)	
Sparc C compiler:	$ 603
Backup mechanism: (5 gigabyte, 4mm)	$ 1,326
Physical cabling:	$ 400
System support (@80.00 per month)	$ 960

WWW server software: (Netsite server software)	$ 2,490
Search and retrieval software: (freeware	
File compression software: (freeware)	
PC console workstation	$ 3,200
PC/Unix software	$ 285

• **Hardware/Software Total:**	**$28,127**

2. Staff Training

There are numerous methods of digitizing available. To enable SIL staff to have the fullest review of options available we are asking for funding for an SIL staff person to attend an intensive one week or two week session in digitizing technology such as Seminar on Digital Imaging for Preservation held at Cornell University or the Seminar on Electronic Texts held at Princeton's Center for Electronic Texts in the Humanities.

Training (including lodging and meals)	$2,373
• **SIL Staff Training Total**	**$2,373**

3. Digitizing Source Material

Scanning and digitizing of text and images varies greatly and involves to processed: the first, the actual scanning of the material into a digital format; and the second, converting the digital text into a character-based text (ASCII) format that will allow for indexing and searching. Though we have not selected the strategy for digitizing the texts, we have done enough investigation to provide figures for the high end costs of the various strategies. We may choose cheaper alternatives and be able to return the balance.

250 pages @$2 - $10 per page (including line drawings, maps, charts, text, pictures etc)	$2,500.
Cost for contracting out the (Optical Character Recognition) OCR process or contracting the re-keying of text into machine-readable form @$4 - $10 per page.	$2,500
• **Digitizing and Converting to characters Total**	**$5,000**

SIL Contributions to the Project

- Costs of retrieving the material and preparing for scan. This could include packaging and shipping if the material is sent off-site, the staff time required to pull the material, removing the binding if necessary, reshelving the material when returned, rebinding the material.
- Staff time for quality control whether the material is coming from an outside vendor or an in-house source.
- Staff time for doing the "value-added" work of hyper-text links and formatting of the material in HTML format.
- Staff time for loading the material on the Web server and maintaining the web server.

MATERIALS SELECTION GUIDELINES

National Agricultural Library

United States
Department of
Agriculture

Agricultural
Research
Service

National
Agricultural
Library

Information
Systems
Division

10301 Baltimore Blvd.
Beltsville, MD
20705-2351

November 9, 1995

SUBJECT: Report on Selection Criteria and Guidelines

TO: Maria Pisa, Chair
Electronic Preservation Committee

FROM: Judith A. Zidar, Chair
Selection Task Force

Jude Zidar

Attached please find the report of the Selection Task Force entitled, "Selection Criteria and Guidelines: Selecting Materials for Digital Preservation at the National Agricultural Library."

The report contains a description of the selection criteria, a discussion of related issues, a one-page worksheet for use by selector staff, and an appendix on surveying the deterioration of archival collections.

The task force members recommend that the report be stored with a copy of the following materials, which were consulted by the task force and are referenced in the report:

1. *A National Preservation Program for Agricultural Literature*, by Nancy E. Gwinn, May 16, 1993.
2. *Collection Development Policy of the National Agricultural Library*, September 1988.
3. *Policy on Processing Priorities for Materials to be Added to the NAL Collection*, March 10, 1986.
4. *Collection Development Memorandum* 1-94.

Attachment

cc:
M. Esman
E. Pletsch
J. Rafats
S. Fugate
J. Mangin

SELECTION CRITERIA AND GUIDELINES

Selecting Materials for Digital Preservation at the National Agricultural Library

November 1, 1995

Prepared by
the Selection Task Force of the
Electronic Preservation Committee
National Agricultural Library
Agricultural Research Service, USDA
Beltsville, Maryland

Selection Task Force Members:

Michael Esman
Ellen Pletsch
Jerome Rafats
Judith Zidar (chair)

The members of the Selection Task Force wish to acknowledge the invaluable contribution of previous task force chair Julie Mangin.

I. INTRODUCTION.

The present Selection Task Force was appointed in August 1995 by the Electronic Preservation Committee. The purpose was to complete the development of criteria and guidelines on the selection of materials for digital preservation at the National Agricultural Library (NAL). This is the report of the Selection Task Force.

The task force gave great weight to the recommendations in Nancy E. Gwinn's May 1993 report to the U. S. Agricultural Information Network (USAIN) entitled, *A National Preservation Program for Agricultural Literature*; herein referred to as "the USAIN Report." The report stressed the importance of a national, coordinated approach to preservation, and recommended that NAL take responsibility for U. S. Department of Agriculture (USDA) and other agriculturally related federal documents, as well as for pre-1862 imprints.

A tour of the stacks revealed the desperate condition of the older USDA materials located on the 12th floor. Unbound materials with yellowed, scattered, torn pages appeared to be on the point of crumbling. Bound materials fared somewhat better, but even some of these had layers of mold or fungi growing on them, and no protection was provided to adjacent materials, which will surely become infested. This collection is so deteriorated, that protective clothing and face masks will have to be required for any staff or contractors working with it! The condition of the newer USDA materials on the 7th floor and the materials in Special Collections on the 13th floor is somewhat better because some conservation work has been undertaken there.

Following these tours, the task force concluded that preservation efforts must concentrate on the USDA materials on the 12th floor, although reserving some part of the work for especially valuable pre-1862 materials. The need to preserve these materials is urgent, and doing so will make a valuable contribution to the national preservation effort, avoid the problems raised by copyright issues, and help to fulfill the mandate to make government documents accessible to the public.

NAL maintains many rare, and even unique, holdings, and the task force is aware that some of these are in need of preservation. With an unlimited budget NAL could aggressively pursue a preservation program that would encompass all its needy holdings. With a limited budget, however, the library must focus its effort in order to have any effectiveness, and that is the strategy recommended in this report.

II. SELECTION CRITERIA AND GUIDELINES.

These selection guidelines follow the preservation program as outlined in the USAIN Report. In that report, the preservation of USDA and federal documents are the charge of the Library:

> "NAL is the major repository for the documents produced by the U.S. Department of Agriculture and the library has taken many steps in the past to preserve portions of this literature. NAL will assume responsibility for ensuring preservation of and access to USDA publications, the agriculture-related documents of other federal agencies (such as the Department of the Interior and the U.S. Geological Survey), and important foreign government documents in its collection." (USAIN Report, p. 12.)

The USAIN Report also gives NAL responsibility for preserving pre-1862 publications. However, it recommends that these be preserved in their original form whenever possible. Therefore, in the initial stages of our digital preservation program, only USDA documents will be selected. There may, however, be individual instances when pre-1862 publications will be chosen for preservation. These decisions will be based on both the unique historical value and the deteriorated condition of the texts.

Selectors will need to have both a knowledge of the breadth of NAL's holdings and a grasp of agricultural literature in general, in order to make judgments about which materials should be preserved. These guidelines will help them with their decisions, but their subjective judgments will have to be their own. It is also strongly recommended that selectors and other staff wear protective clothing and, in some cases, face masks, to protect them from the dust, fungi, and mold that will be encountered when working with these materials.

Finally, in the interest of better utilization of available shelf space, the Selection Task Force recommends that where there are multiple paper copies of a title, unneeded paper copies be weeded from the stacks after the digital copy is created, in keeping with the Library policy on number of copies for the NAL collection (*Collection Development Memorandum* 1-94).

Criteria to be used in determining which publications should be preserved are listed below:

1. Select USDA documents for preservation in the following order:

1) Reports of original research.
2) Statistical reports.
3) Regulatory documents.
4) Extension publications.
5) Administrative documents.

All other factors being approximately equal, USDA materials will be digitized in this order.

2. Select items that are in deteriorated condition.

Determine whether the work is bound, unbound or issued in loose sheets. Other things being equal, select unbound titles or those with loose sheets, over bound titles. Check for worn appearance or roughness, faded print, mold, unpleasant odor, brittleness, discoloration, torn pages, and missing pages or pieces of pages.

For more information on evaluating deterioration, see Appendix 1, "The Eindhoven Variant: A method to survey the deterioration of archival collections."

3. Give preference to works of historical value.

Assess the value of documents to the understanding of the history of agriculture in the United States. Consider whether they fill an important gap in completing the history of USDA. Determine if they contain rare illustrations worth preserving. When considering these factors, give preference to materials published by a USDA agency with research, extension, or regulatory responsibility.

4. Select materials that are in a core area of NAL's collecting responsibility.

NAL uses the terms of the Research Libraries Group Conspectus to describe which subjects are most important in the collection and thus which are collected most intensively. Material being considered for preselvation should be given priority based partly on the importance of the subject matter. The preservation selector should refer to two important NAL policies when considering preservation treatments.

First, and most important, are the subjects that NAL collects at the National level. These are listed in the March 10, 1986 *Policy on Processing Priorities for Materials to be Added to the NAL Collection*. National level collecting for any given subject involves collecting the subject comprehensively, processing material in the subject on a priority basis, providing services nationwide for other research libraries, and preserving the material dealing with the subject indefinitely. The subjects listed in the 1986 *Policy on Processing Priorities* as being collected at National level by NAL are:

a. Animal husbandry -- production, nutrition and care of cattle, horses, hogs, poultry and other livestock.

b. Aquaculture -- such as economic development of aquatic resources, fish farming, fisheries technology and production, algae culture, but not whaling.

c. Biotechnology -- including but not limited to genetic engineering, biological control, integrated systems (biological) management, but not when applied to pharmacology or specifically human medicine.

d. Nutrition -- foods and food supply including composition, adulteration, chemistry, preservation, storage, industry, processing, technology, packaging, inspection, dietary research, and food values. Not cookery, cookbooks or materials on dietary programs or treatment.

e. Plant and seed trade catalogs.

f. Textile and fiber plants -- plant culture.

g. Veterinary science -- all aspects except primatology, the human/animal bond, comparative medicine, and experimental surgery.

Conspectus levels below National level are, in order of importance to a collection, Comprehensive, Research, Study, Basic, and Minimal. These levels are listed and defined further on pages 7 and 8 of the *Collection Development Policy of the National Agricultural Library*. This 1988 policy outlines all the subjects collected at NAL and shows the level at which each is collected. Material considered for preservation should be selected according to the importance of its subject, and NAL's *Collection Development Policy* should be followed closely by preservation selectors. Because of limited funding, it is recommended that only materials collected at the National, Comprehensive, and Research levels be considered for digital preservation.

5. Consider the projected amount this material will be used.

Speculate whether this material is likely to be requested by a patron within the next 10 years. One use every ten years should be a starting point for projecting usefulness to patrons. Materials used less frequently than every 10 years cannot be considered "useful" when evaluating this factor, although this does not necessarily mean the materials are not valuable. This is not something the selectors should spend a great deal of time wrestling with. Rather, it is meant to be a "best guess" on their part, and is recognized as being only that. If in doubt, the selectors should not checkmark this item on the Worksheet.

6. Give preference to materials unique to NAL or uniquely preserved by NAL.

Determine if the work is owned by another institution.. Determine if the work has been preserved by another institution either in electronic or microform format. This will be difficult information to obtain, but a reasonable effort should be made, so as to avoid duplicate preservation of a text. Check OCLC, RLIN, the National Register of Microform Masters, and the Internet. Web sites and Listservs may identify preservation programs. It may be useful to search Cornell's on-line catalog. Be sure to check also to see if NAL has already digitized or microfilmed the work.

There may be instances where NAL will choose to preserve a document that is already preserved by other institutions. These may include items such as USDA core publications for which NAL has special responsibility, high use materials in deteriorating condition, or items of particular value to NAL. Decisions on these items should be made on a case-by-case basis.

III. TO DIGITIZE OR TO MICROFILM.

Electronic Preservation. The purpose of these Guidelines is the selection of materials for electronic preservation, but a consideration of microfilming is still in order. A FLICC symposium entitled, "The Great Preservation Debate: To Digitize or to Microfilm", was presented at the National Archives on September 20, 1995. Although no full consensus was reached, there was general agreement that (1) microfilming is cheaper than digitizing, in the long run; (2) digitizing provides better access and cheaper distribution; (3) it is easier and cheaper to scan older materials from microfilm than from the paper source; (4) digital information is the wave of the future.

The approach recommended at the symposium was to microfilm low-demand materials, and digitize high-demand materials. This would preserve the low-demand materials, but at a lower cost than it would take to digitize them. If the demand for them changes in the future, they could be digitized from the microfilm. High-demand materials can be digitized directly, and the lower cost to access and distribute them would actually save money in the long run. NAL does not keep statistics on the demand-rate of its materials, so this approach could be hard to implement here. Furthermore, older materials that are likely to need preservation cannot be tracked for usage at all, since most of them are not now in ISIS.

The Selection Guidelines in Section II recommend a concentration on USDA documents. An effort is underway throughout the Government to make such materials readily accessible to the public, and accessibility is best and most economically realized through digital means. This is why we are recommending that these particular materials be preserved electronically, even though many of them may not be in the high-demand category. Preservation funds are extremely limited. We therefore do not recommend that materials already preserved through microfilm be electronically preserved as well, even if they fall within this category.

Current Microfilming Efforts. NAL's Document Delivery Services Branch has an ongoing microfilming program. Their selection criteria are:

1. A patron has requested the item; and
2. The item is seriously deteriorated, possibly in a "last use" condition; and
3. The item is considered to add value to the NAL collection.

When these criteria are met, the item is selected for microfilming. A master and two working copies are produced, and one of those working copies goes to the patron. The master microfilm is stored in the vault, and the working copy is used for reproducing copies whenever the item is requested again. If the selected item is part of a series or set, the entire run might be microfilmed, rather than just the one item. This is a very practical, though ad hoc, approach to preservation, which is based on the concept that we need to preserve what our customers need. It also assumes that the item will be requested again, justifying the cost of microfilming.

By designing selection criteria for choosing materials, we hope to take a more strategic approach to preservation, selecting materials to meet the needs and responsibilities of the Library as a member of the agricultural community. We also expect this more strategic approach to enable us to free up additional shelf space, by digitizing long runs of related documents, and discarding one or more paper copies of the items. We are not recommending that DDSB discontinue its microfilming effort. With limited funding, we do not foresee any other way to fill the need it serves. We do recommend a cooperative effort between DDSB and the EPC to ensure there is no duplication of effort and that both teams are kept informed of each other's activities. If DDSB selects an item for microfilming that falls within the selection criteria for electronic preservation, we recommend that the item be digitized if possible. However, the staff may want to make this decision on a case-by-case basis.

Artifactual Value. Items identifed as have artifactual value, such as historical papers, rare color prints, first edition books, or works of art, should be preserved in their original form if possible. However, these items may still be selected for digital preservation if they fall within the selection guidelines. Digitization will make them more accessible, as well as decreasing the likelihood that the documents themselves will have to be handled in the future.

IV. ARCHIVING.

One of the key missing ingredients we see in the plans for electronic preservation is an archiving system that is secure and accessible, and can incorporate a long-range refreshment and migration strategy. The system will need a team of experts to run and maintain it, in the same way that such a team runs and maintains ISIS. This system will have to become integral to the function of the library, for it will hold, in some cases, the only copy of important materials.

The design of the system is likewise critical. A system that is integrated with the data capture system will enable NAL to make the best use of its limited preservation funds and staff. Such a system would accept documents as they are scanned in, without further conversion; accept many different types of data, including full text, images, sound, and video; permit inhouse design of the data tracking portion of the system so that it best serves our retrieval needs; is available over a network and can be accessible via the internet; and is easy and intuitive to access, even for novice users, or can be linked to ISIS for direct access to materials from the cataloging and indexing records.

An Archiving Committee has been formed to study this critical component and recommend a solution. This is not an easy task, but we believe such a system is possible and affordable.

A further component of this system is a national reporting mechanism that can assist in tracking digitizing programs and the materials digitized. NAL should work cooperatively with other institutions to implement a "National Register of Digitized Materials", that would work much like the National Register of Microform Masters does for microfilming programs. This will avoid duplication of effort, and keep track of who is preserving what.

V. SELECTION CRITERIA WORKSHEET.

Attached to this report is a one-page summary of the selection guidelines in the form of a Selection Criteria Worksheet. The worksheet is designed as a check-off form, so that staff who perform the selection of materials can use it to describe and prioritize those materials.

On the worksheet, the description portion at the beginning of the worksheet, along with Sections 1 and 2, should be completed in the stacks with the item in hand. If the item is a USDA publication, the publication type should be noted, and this will be used for priority ranking of the materials. Materials with a higher rank will be digitized first, provided the point totals in Sections 1, 2 and 3 are approximately equal (within 5 points). After describing the document or series as indicated in "Description," the number of copies should be noted in the space provided. The subjects listed in Section 2 of the worksheet, under "Comprehensive" and "Research" levels of collection, are intended as a guide, and are not all-inclusive. For a complete treatment of subject coverage at NAL, consult the *Policy on Processing Priorities* and the *Collection Development Policy*. Section 3, Uniqueness, is intended to be filled in later, after checking OCLC, RLIN, the Register of Microform Masters, and other tracking tools.

After all three sections have been completed, the TOTAL can be computed. Count each checkmark in Sections 1, 2, and 3 as one point, except for the Subject values, where NATIONAL counts as 5 points and COMPREHENSIVE counts as 3 points. If more that one subject category is checked, only the highest value should be counted toward the total.

At the end of the form is an entry for "Has Artifactual Value". Artifactual value should be determined in the stacks with the item in hand, and this line should be checkmarked only if the item should be preserved *in its original form*. A check here does not count toward the total points, but rather, is an independent parameter. If the item should and can be preserved in its original form, we may choose to do that rather than digitize it, unless its physical condition is desperate.

SELECTION CRITERIA WORKSHEET

USDA Publication ______ **Pre-1862 Publication** ______

Rank of USDA Publication ________ (Enter number of publication type from list)

1. Reports of original research
2. Statistical reports.
3. Regulatory documents.
4. Extension publications.
5. Administrative documents.

Description [Name of publication, year(s), volume(s), issue(s), etc.] and Call No. Number of copies: { }

Enter checkmark below where appropriate. Each check earns one point toward the Total, except as noted.

1. PHYSCIAL CONDITION (TOTAL ______).

Brittle paper ____ Moldy/Smelly ____ Discolored ____ Faded print ____

Torn ____ Missing pieces of pages ____ Not bound ____ Scattered pages ____

2. VALUE (TOTAL ______).

Historical value:

Contributes to an understanding of the history of agriculture in the U.S. ____

Fills gaps in history of USDA ____ Contains rare illustrations ____

Published by USDA agency with research, extension, or regulatory responsibility ____

Subject value, by level of collection (Check NAL Collection Development Policy for complete breakout of subject coverage):

National (5 pts) _____

- Animal husbandry
- Aquaculture
- Biotechnology
- Nutrition
- Plant & seed trade catalogs
- Textile & fiber plants
- Veterinary science

Comprehensive (3 pts.) _____

- Agriculture ("S" Nos.)
- Botany
- Conservation of soil & water
- Cooperatives, agricultural
- Economics, agricultural
- Education, agricultural
- Farm buildings
- Food; Food products
- Food processing & manuf.
- Forestry
- Geology, agricultural
- History, agricultural, U.S.
- Household pests
- Law, agricultural
- Meteorology, agricultural
- Microbiology, agric.
- Mortgage; Insurance
- Paleobotany
- Paleozoology
- Pesticides
- Plant anatomy & phys.
- Plant & animal culture
- Pollution; Waste
- Prices & commodities
- Public health, medical
- Rural land; Homestead
- Social customs, agric.
- Transportation, agric.
- Zoology (part)
- Zoonoses

Research (1 pt.) _____

- Animal protection
- Biochemistry
- Biology
- Botanical gardens
- Chemicals
- Chemistry
- Entomology, economic
- Environmental policy
- Forest products
- Genetics
- Hides and skins
- Highway engineering
- History, agric., world
- Motor vehicles, agric.
- Parks & recreation
- Pets
- Pollution, engineering
- Rural social history
- Satellites, agric.
- Soil mechanics
- Statistics, agric.
- Tobacco processing
- Toxicology
- Voyages & expeditions
- War & public health
- Zoology (part)

Likely to be requested by a patron within 10 years ____

3. UNIQUENESS (TOTAL ______).

Not owned ____ / not preserved ____ by other institutuion USDA core document ____

TOTAL from 1, 2, and 3 ______ || **HAS ARTIFACTUAL VALUE** ______

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JOB DESCRIPTIONS

CORNELL UNIVERSITY
NONACADEMIC POSITION DESCRIPTION

Position title:

Working Title, if any: Scanning Technician
Title of immediate supervisor: Associate Director-Preservation
Unit/Department: Preservation
Employee(s) in position, if any:

Department head approval: Date: 8/3/92
PSG representative approval: Date:

Main Function:

Summarize responsibilities in 1-2 sentences:

Participates in Research and Demonstration Projects utilizing digital technology. Tests and evaluates new equipment, techniques, or procedures; collects and analyzes data to assist in developing and improving processes.

Duties and Responsibilities:

Include appropriate percentage of time spent in each area, or list in order of decreasing priorities; and size of budget responsibilities, if any.

-Test prototype scanning equipment. Scanning activities include: materials preparation, identifying optimal image capture (registration, density, image settings, on-screen evaluation of sample pages, editing of pages to enhance visual images), production scanning, quality evaluation, rescanning, and post-scanning functions.
-Provide evaluation of system capabilities in writing and orally to project managers and industry contacts. Complete system evaluation reports. Record technical and indexing information on project worksheets. Make recommendations for adjustments to hardware/software.
-Document performance of the equipment over time, maintaining statistical data and information on the equipment's reliability
-Communicate with industry contacts on a daily basis to resolve problems and to improve system performance.
-Work with industry development teams to learn basic operating skills and to establish methods for testing hardware and software.
-Assist project managers in evaluating utility of prototype equipment for library preservation purposes.
-Conduct experiments to test image capture capabilities of the software and equipment.
-Conduct experiments (e.g., semi automatic feeding of paper with various levels of brittleness) to test increased production capabilities of equipment.
-Demonstrate new technology to visitors with diverse technical backgrounds.
-Prepare samples demonstrating system capability for public presentations.
-Attend planning meetings both at Cornell and elsewhere to report on system performance from an operational perspective
-Train other scanning technicians and interns.
-Interact effectively with selectors/curators/archivists and other

library units
- Assist in other project-related duties as needed

Supervision of others
Include title and grade:

supervise student assistants

Knowledge/Experience Requirements

1. A.A. degree or equivalent
2. Excellent organizational and work-flow management skills
3. Attention to detail
4. Ability to work independently
5. Previous printing and/or photocopying experience.
6. Familiarity with photocopying and printing equipment.
7. Previous experience with computers. Familiarity with Windows and the use of computer mouse highly desirable.

Contacts
Include internal and external, level and frequency:
Internal: daily with project managers or other preservation staff; regularly with systems office, bibliographers/selectors/catalogers, photocopy services and Information Technologies.
External: regularly with industry representatives; occasionally with librarians and others interested in scanning technology.

Working Conditions
Generally clean environment. Equipment used regularly includes prototype scanning equipment.

Physical Demands
Ability to stand and visual concentration required in inspection process.

80

USDA, National Agricultural Library
Information Systems Division
Database Administration Branch
Beltsville, Maryland
Associate Librarian
Anticipated yearly salary: $23,558

A. INTRODUCTION

The Information Systems Division (ISD) is responsible for the design and operation of information systems within the National Agricultural Library (NAL); the development of long-range plans between libraries for compatible machine-readable data; and inter-agency and intra-agency coordination and planning activities involving library automation.

The incumbent serves as a Librarian performing a variety of tasks in support of the National Agricultural Text Digitizing Program (NATDP). The goal of NATDP is to convert valuable agricultural reference literature into a digital, computer-readable format and place this information on optical discs for distribution to the agricultural community.

B. MAJOR DUTIES

Prepares documents for scanning into the Optical Disc System. Assembles documents and accurately collates material, checking for completeness, print quality, and presence of Header Sheet.

Scans fully prepared material either manually or automatically, using an optical scanner. Verifies accuracy of each image and initates rescanning as needed. Operates scanning and quality control equipment using all appropriate controls and software commands, making adjustments as required for each page (brightness, contrast, grey scale, page size, etc.).

Employing guidelines for optical disc document control and identifiers, keys into machine-readable form the appropriate bibliographic retrieval records for each document, including Relational Headers and/or MARC records.
Using appropriate controls and software commands, initiates the process whereby textual data from the scanned, bit-mapped images is converted into machine- readable ASCII.

Performs quality control checks on digitized ASCII data to determine accuracy. Corrects errors when necessary.

Maintains a written daily log of material processed.

Performs other related duties as assigned.

C. SUPERVISORY RESPONSIBILITIES

Performs quality control checks on work performed by Library Technician. Corrects errors when necessary and provides feedback to Technician.

D. EVALUATION FACTORS

1. Knowledge Required by the Position

Knowledge of library science, including an MLS degree from an ALA-accredited program.

In-depth knowledge of microcomputer operations, MS-DOS, and MS-Windows.

Knowledge of keyboarding and data entry procedures.

Knowledge of a standard bibliographic format, USMARC preferred.

2. Supervisory Controls

Incumbent receives guidance from the Operations Supervisor, but is expected to make decisions about routine problems related to data quality. The incumbent will select material to process and scan, and the Supervisor will perform final quality control checks. Incumbent is expected to perform tasks on a timely basis without constant supervision.

3. Guidelines

Incumbent will be trained in the operation of the scanning and recognition equipment and in the use of the software which will capture and index the data. Guidelines include operations manuals, vendor-supplied equipment and software documentation, and users guides. Verbal and hands-on guidance will also be supplied when appropriate.

4. Complexity

Material to be scanned will be in a variety of sizes, formats, and print qualities. Careful analysis is required prior to scanning, in order to determine appropriate control settings, often on a page by page basis. The technology being utilized is new and complicated; the software involved is continually being updated and is therefore subject to change. Both accuracy and timeliness are critical.

5. Scope and Effect

The work involves preparation, scanning, converting, and editing a variety of published literature;

manually entering bibliographic retrieval information; and placing the data on optical discs for distribution to the agricultural community as critical reference tools.

6. Personal Contacts

Contacts are primarily with NAL co-workers and managers, but occasionally with visitors from other agencies, universities, and private industry.

7. Purpose of Contacts

Contacts with NAL staff are to discuss work assignments, request guidance, and report status of material to be scanned. Contacts with visitors will be primarily to demonstrate system operations.

8. Physical Demands

The work is mostly sedentary. It includes some walking, standing, bending, and the transporting of items such as paper, manuals, and computer printouts. Incumbent will be viewing a high-resolution computer screen much of the time, which may cause some eye strain.

9. Work Environment

The work is performed in an office setting.

USDA, National Agricultural Library
Information Systems Division
Database Administration Branch
Computer Specialist

A. INTRODUCTION

The Information Systems Division (ISD) is responsible for the design and operation of information systems within the National Agricultural Library (NAL); the development of long-range plans between libraries for compatible machine-readable data; and inter-agency and intra-agency coordination and planning activities involving library automation.

The incumbent serves as Computer Specialist performing a variety of tasks in support of library application systems, chiefly for, but not limited to, the text digitizing projects. The goal of text digitizing is to convert valuable agricultural reference literature into a digital, computer-readable format and place this information on optical discs for distribution to the agricultural community.

B. MAJOR DUTIES

Acts as project leader and operations manager for NAL's microcomputer-based text digitizing system, with responsibility for project planning, conformance to requirements, adequacy of documentation, and timely and efficient accomplishment of scanning and digitizing tasks.

Supervises staff performing text digitizing scanning and editing tasks.

Coordinates successive steps of project with project team members.

Responsible for evaluating the suitability of data for its inclusion in machine-readable full text databases or other specialty databases.

Evaluates the quality of scanned, computer-generated digitized data for its accuracy, consistency, and content.

Serves as ISD coordinator for participants in various text digitizing projects, including land grant universities and other interested parties, who seek information about or help in using various optical disc-based databases; resolves problems as possible and refers to appropriate staff or outside experts when necessary.

Develops and maintains contacts with officials of NAL, other agencies and information centers, and others whose automation activities bear on those of NAL.

Participates in the activities necessary for the day-to-day operation of the NAL applications systems. This includes problem analysis, documentation review, and test file design and creation.

Provides written monthly reports on the status of all projects and activities for which responsible.

Performs various other duties as assigned.

C. EVALUATION FACTORS

1. Knowledge Required by the Position

In-depth knowledge of advances in computer technology with an emphasis on optical disc developments, image scanning, and text digitizing capabilities.

Comprehensive knowledge of information needs within NAL, USDA, and the agricultural community and relevant sources for this information.

Knowledge of system documentation and project planning practices and procedures.

Knowledge of library operations in a large research library.

Basic knowledge of the USMARC Formats for Bibliographic Data and the USMARC Authorities Format, and ability to recognize departures from the norm in such records.

Knowledge of online computer systems including at least one containing the AGRICOLA database.

2. Supervisory Controls

Works under established objectives with minimal supervision from the Branch Head who, in consultation with the incumbent, provides work assignments and sets deadlines.

Works independently to plan and carry out successive steps of the project in accordance with NAL policy, previous training, and established practices.

3. Guidelines

There are no technical guidelines relating to text digitizing operations. Incumbent is responsible for developing these guidelines and procedures in consultation with others involved in this emerging technology.

Peripheral guidelines include agency regulations, policies, and precedents, National Information Standards Organization (NISO) documents, American National Standards Institute (ANSI) standards relating to information processing and libraries, and appropriate systems or software manuals.

The incumbent receives only general guidance and must have a broad base of knowledge in both computer science and in information processing to interpret guidelines and use judgment and initiative in developing new approaches in situations not covered by existing practices.

4. Complexity

Assignments are extremely complex in that they involve integrating technologically advanced components into previously untested working application systems. Incumbent maintains close coordination with technical experts and project participants including land grant universities and other government agencies.

Assignments are characterized by the need for substantial analysis and may encompass both bibliographic and non-bibliographic data in a variety of formats and will involve a number of different computer systems, especially in the rapidly evolving field of laser technology.

Assignments are diverse and require a great deal of originality to focus on the problem and develop the best solution. Assignments typically relate to making major modifications to unprecedented complex integrated systems to enhance system effectiveness.

5. Scope and Effect

The work involves developing, maintaining, overseeing the day-to-day operation of NAL's text digitizing projects in support of agricultural researchers and administrators and the agricultural community, and providing user and system documentation and support.

The incumbent serves as the focal point for disseminating research results throughout the agricultural and information processing communities.

6. Personal Contacts

Contacts are with USDA researchers and officials, database administrators, private industry hardware and software vendors and system developers, leaders in agricultural information world-wide, and co-workers.

7. Purpose of Contacts

Contacts are to develop user specifications for databases, to inform contractors of agency system requirements, to acquire information about new systems, and to promulgate information on NAL's digitizing projects to the agricultural information communities. This latter includes giving demonstrations of systems and public speaking ranging from small groups to large audiences.

8. Physical Demands

The work is mostly sedentary. It includes some walking, standing, bending, and the transporting of items such as paper, manuals, and computer printouts.

9. Work Environment

The work is performed in an office setting.

USDA, National Agricultural Library
Information Systems Division
Database Administration Branch
Beltsville, Maryland
Library Technician
GS-1411-4/5
Anticipated hourly salary: $6.50

A. INTRODUCTION

The Information Systems Division (ISD) is responsible for the design and operation of information systems within the National Agricultural Library (NAL); the development of long-range plans between libraries for compatible machine-readable data; and inter-agency and intra-agency coordination and planning activities involving library automation.

The incumbent serves as a Library Technician performing a variety of tasks in support of the National Agricultural Text Digitizing Program (NATDP). The goal of NATDP is to convert valuable agricultural reference literature into a digital, computer-readable format and place this information on optical discs for distribution to the agricultural community.

B. MAJOR DUTIES

Prepares documents for scanning into the Optical Disc System. Assembles documents and accurately collates material, checking for completeness, print quality, and presence of Header Sheet.

Scans fully prepared material either manually or automatically, using an optical scanner. Verifies accuracy of each image and initiates rescanning as needed. Operates scanning and quality control equipment using all appropriate controls and software commands, making adjustments as required for each page (brightness, contrast, grey scale, page size, etc.).

Employing guidelines for optical disc document control and identifiers, keys into machine-readable form the appropriate bibliographic retrieval records for each document, including Relational Headers and/or MARC records.

Using appropriate controls and software commands, initiates the process whereby textual data from the scanned, bit-mapped images is converted into machine- readable ASCII. When necessary, delineates picture vs. text "zones" on images, to improve conversion process.

Performs quality control checks on digitized ASCII data to determine accuracy. Corrects errors when necessary.

Maintains a written daily log of material processed.

Performs other related duties as assigned.

C. EVALUATION FACTORS

1. Knowledge Required by the Position

Basic knowledge of microcomputer operations and MS-DOS.

Knowledge of keyboarding and data entry procedures.

Knowledge of a standard bibliographic format, USMARC preferred.

2. Supervisory Controls

Incumbent receives guidance from the Operations Supervisor, but is expected to make decisions about routine problems related to data quality. The supervisor will assign material to be processed and scanned and will perform final quality control checks. Incumbent is expected to perform tasks on a timely basis without constant supervision.

3. Guidelines

Incumbent will be trained in the operation of the scanning and digitizing equipment and in the use of the software which will capture and index the data. Guidelines include operations manuals, vendor-supplied equipment and software documentation, and users guides. Verbal and hands-on guidance will also be supplied when appropriate.

4. Complexity

Material to be scanned will be in a variety of sizes, formats, and print qualities. Careful analysis is required prior to scanning, in order to determine appropriate control settings, often on a page by page basis. The technology being utilized is new and complicated; the software involved is continually being updated and is therefore subject to change. Both accuracy and timeliness are critical.

5. Scope and Effect

The work involves preparation, scanning, digitizing, and editing a variety of published literature; manually entering bibliographic retrieval information; and placing the data on optical discs for distribution to the agricultural community as critical reference tools.

6. Personal Contacts

Contacts are primarily with NAL co-workers and managers, but occasionally with visitors from other agencies, universities, and private industry.

7. Purpose of Contacts

Contacts with NAL staff are to discuss work assignments, request guidance, and report status of material to be scanned. Contacts with visitors will be primarily to demonstrate system operations.

8. Physical Demands

The work is mostly sedentary. It includes some walking, standing, bending, and the transporting of items such as paper, manuals, and computer printouts. Incumbent will be viewing a high-resolution computer screen much of the time, which may cause some eye strain.

9. Work Environment

The work is performed in an office setting.

THE PENNSYLVANIA STATE UNIVERSITY
University Libraries

JOB DESCRIPTION

Position Title:

Digital Scanning Technician (Non-Student Wage:
40 hours/week)

Summary of Job:

Provide continuing support for the digital scanning of library collections (books, archival materials and unbound documents) using the Xerox Documents on Demand scanning workstation.

Primary Responsibilities:

Prepare materials for hand-placed production scanning to assure quality capture. Create a system structure file (raster document object) for each folder or book to be scanned. Input index (properties) information into a linking system file. Determine and set scanning parameters based on format and material type. Perform production scanning operations as required by the material type. Edit images by selecting new scanning parameters and rescan if necessary. Once materials are scanned, perform quality control inspection procedures on the image file to confirm quality capture.

Print a draft laser copy as needed to determine image quality. If a facsimile reproduction is needed, prepare a production print job ticket and transmit the images to the University Business Services facility for a 600 dot per inch quality DocuTech-produced print. Inspect facsimile prints against the digital image file for order and accuracy. Move image files to optical disks for storage.

Maintain daily statistical data of all scanning activities and jobs completed. Perform weekly file and system back-up procedures. Assist in resolving technical problems with personnel at the University Business Services facility and with Xerox Corporation technical systems staff.

Responsible for the careful handling of fragile and brittle primary source documents, as well as for the security and safekeeping of all system equipment and library collections stored in the Preservation Workroom (Room C7 Central Pattee).

Perform other duties as assigned.

Digital Scanning Technician Job Description -- Page 2

Requirements:

Keyboard, microcomputer and software applications experience. Extensive knowledge of Microsoft DOS and Microsoft Windows 3.1. Strong written and oral communications skills especially for problem solving on technical matters. Maintain knowledge of methods and procedures in light of the changing technology. Knowledge of library operations and bibliographic control procedures.

Supervisor:

Position reports to the Preservation Librarian, Access Services Department.

lsk 3/95

PROJECT DESCRIPTIONS INCLUDING SYSTEM CONFIGURATIONS & SAMPLE PRINTOUTS OF DIGITIZED MATERIALS

Submitted to Library Horizons by Tony Graham

The *C.S.S. Alabama* will be the subject of the William Stanley Hoole Special Collections Library's first digital imaging effort. The Confederate commerce raider was chosen as a focus for the project because it appeals to a wide range of ages and because the varied nature of Hoole's collection on the ship allows experimentation with scanning both text and graphic images. Andrea Watson and Clark E. Center, Jr., the originators of the *C.S.S. Alabama* concept, envision users sitting before an on-screen image of a world map. The map traces the journeys of the raider from its 1862 launch at the shipyards of Liverpool, England, to its sinking off the coast of France by the *U.S.S. Kearsarge* two years later. Navigating the globe with a mouse, users will select from numerous points along the ship's route. These points will be linked to log entries, newspaper reports, historical accounts, and illustrations that correspond to the geographical location. Users will view photographs of Raphael Semmes, captain of the *Alabama*, and members of his crew. They will be able to access the design drawings from which the ship was constructed, read Union spy reports from Liverpool, see models of the ship, and enjoy the score for F.W. Rosier's 1864 song *The Alabama*. The goal is a virtual recreation of the journey of the *Alabama*.

Project planners see the *C.S.S. Alabama* effort as an excellent way to explore the world of library digital imaging. The final product should be a valuable learning tool and an exciting demonstration to show the public the kinds of materials held in Special Collections. The project is, however, only a beginning in the library's attempt to improve public access through computer technology. The C.S.S. Alabama project will be one of a number of links from a World Wide Web page currently under construction. In the future, patrons will be able to view descriptions of collections, library hours and general information, galleries exhibiting historical and geographical photographs, finding aids for manuscript collections, document delivery information, and the demonstration database of Alabama historical post cards prepared at the School of Library and Information Studies.

Eventually, remote and local users will have access to databases of full-text documents and complete collections of graphic images drawn from the University's unique holdings. The photographic scrapbooks of Alabama botanist Roland Harper and the Alabama Geological Survey photos are two examples of valuable resources of which the public is largely unaware. Digitization would allow world-wide accessibility to these sparsely-used photographic sources. The C.S.S. Alabama project will bring the possibilities and pitfalls of long-range digitization efforts of this type to the fore. It is a preparatory effort toward the University Libraries' goal of a "library without walls."

Choice of C.S.S. Alabama materials

Few ships in recent history have captured the imaginations of so many for so long as has the *C.S.S. Alabama*. Built in secrecy for the Confederacy in the Liverpool shipyards of John Laird Sons and Company, the *Alabama* became the subject of controversy even as her keel was laid. The Union did not take kindly to this expression of British sympathy for the cotton-producing South, and much diplomatic subterfuge was required to complete and launch "290," the *Alabama's* nom de guerre. Afloat on the high seas by the summer of 1862, the *C.S.S. Alabama* harried Yankee traders and took scores of prizes until she was finally sunk by the *U.S.S. Kearsarge* off the French coast near Cherbourg in June 1864.

The *Alabama's* brief but brilliant career has been well-documented for over a century. Accounts of the *Alabama's* construction and actions appeared in contemporaneous news sources such as *Harper's Weekly*. The memoirs of her famous captain Raphael Semmes and the reminiscences of her officers John McIntosh Kell and John Low are firsthand chronicles of the *Alabama* at sea. Official documents of the Confederacy provide further historical data. Professional historians have ruminated at length on the *Alabama* and her exploits in scholarly articles and monographs. Other writers have created works of more popular appeal, as witness the December 1994 *National Geographic* feature article "The Wreck of the *Alabama*: Avenging Angel of the Confederacy." The sheer beauty of the Alabama's bark rigging inspired artists of her era and continues to fascinate modellers today. In the final analysis, children of all ages love to go down to the sea in ships.

This persistent interest in the *C.S.S. Alabama* has created a body of knowledge in various formats that reside in discrete areas within the W. S. Hoole Special Collections Library. The formats range from published books, manuscript materials, sheet music, newspapers, maps, color prints, plans, models, and other realia. Thus materials relevant to the *C.S.S. Alabama* comprise a microcosm of special collections materials the scanning and digitization of which should prove technically instructive as well as a contribution to scholarship.

C.S.S. Alabama Information Bank:

an experiment in the scanning and digitization of Hoole Special Collections Library materials

Scholarship is not easy, either mentally or physically. While librarians cannot alter the former, we can use information technology to greatly ameliorate the latter.

Consider for a moment the traditional approach to research requiring the examination of manuscripts and other primary sources, scarce or unique texts, images, and maps, in sum, the stuff of which special collections are made. First a scholar has to locate materials relevant to his topic. Published reference tools are useful, but often word-of-mouth along the scholarly grapevine provides valuable leads to special collections in libraries and archives throughout the country, and indeed, the world. Seasoned researchers also understand that because of the scarce and often unique character of these special materials they cannot be allowed to circulate as ordinary library materials do. Consequently, scholars must conduct their investigations not only on site but according to institutional rules, within prescribed hours. This requires a carefully planned trip, taking all these factors into account while attending to sundry personal logistics.

Once inside the library, the careful scholar who wishes to do an exhaustive study of a given topic will often find it necessary to examine items in many different formats, such as print, manuscript, microform, sound recording, etc. using whatever devices that are necessary to access the information therein. These complexities can daunt even the most determined and skilled researchers; the young and uninitiated are all but excluded.

Clearly, electronic access to special collections materials would minimize the many of the physical impediments to research. Additionally, it would open special materials to scholars at all levels, from the grammar school student studying Alabama history for the first time to the research professor. K-12 schools with electronic information retrieval capabilities could allow students to tap into these diverse scanned and digitized resources and sample as much or as little as their levels of interest and expertise might dictate. Thus the creation of an electronic full-text and graphic information database of a finite group of materials from the W. S. Hoole Special Collections Library is an essential first step toward our ultimate goal of becoming a library without walls.

Core Materials for a C.S.S. Alabama Information Bank

I. Books: 23 English-language monographs published prior to 1920 and now free of copyright restrictions, many illustrated with photographs, line art, and maps. These total approximately 5000 pages.

II. Manuscript materials from two major collections:

A. William Stanley Hoole Papers

Box 2248, Folders 2/5.-1-2/5.7
material regarding Hoole's book on Anderson and Edward Anderson photo album, presented July 22, 1864, Liverpool, includes photos of the C.S.S. Alabama crew, friends, and associates made in London or Liverpool during the summer of 1864 (50 cartes de visite; leather-bound with ornamental metal fittings)

Box 2248, Folder 66
typescript of Low's Reminiscences and other newspaper stories

Box 2248, Folder 67
clippings: Liverpool paper, 1904, interview with Low; photocopy, Cape Argus, 1933; Illustrated London News, 1863, and others

Box 2248, Folder 68
photographs of Semmes, Low, Low's pistols, coat, and grave monument

Box 2250, Folder 94
typescript of a Union agent's report on activity in the Laird shipyards; typescript of other spy reports on "290"

B. C.S.S. Alabama Collection

Box 1744: manuscript log of the C.S.S. Alabama 1862-1964; manuscript log of Lt. (later Capt.) John Low, kept on the C.S.S. Alabama and the C.S.S. Tuscaloosa, 1862-1863; photos of the masts and rigging of the C.S.S. Alabama and the shipyard model used by Laird

III. Microforms: 1 microcard and 4 microfilm items

IV. Music: The Alabama, by F. W. Rosier (sheet music, 4 pages)

V. Prints: 3 colored engravings of the Alabama at sea

VI. Harper's Weekly: news items and political cartoons from 1862-1864

VII. Plans of the C.S.S. Alabama

VIII. Realia: candidates for the possible use of three-dimensional technology
   A. model of the C.S.S. Alabama by Dunnam
   B. crystal engraving of the C.S.S. Alabama by Tuscaloosa artist Harold Herglotz

IX. Pathfinder to further information:. suggested search strategies in the online public catalog that lead to copyrighted publications, including juvenile literature, e.g.

s=alabama cruiser

s=alabama cruiser--juvenile literature

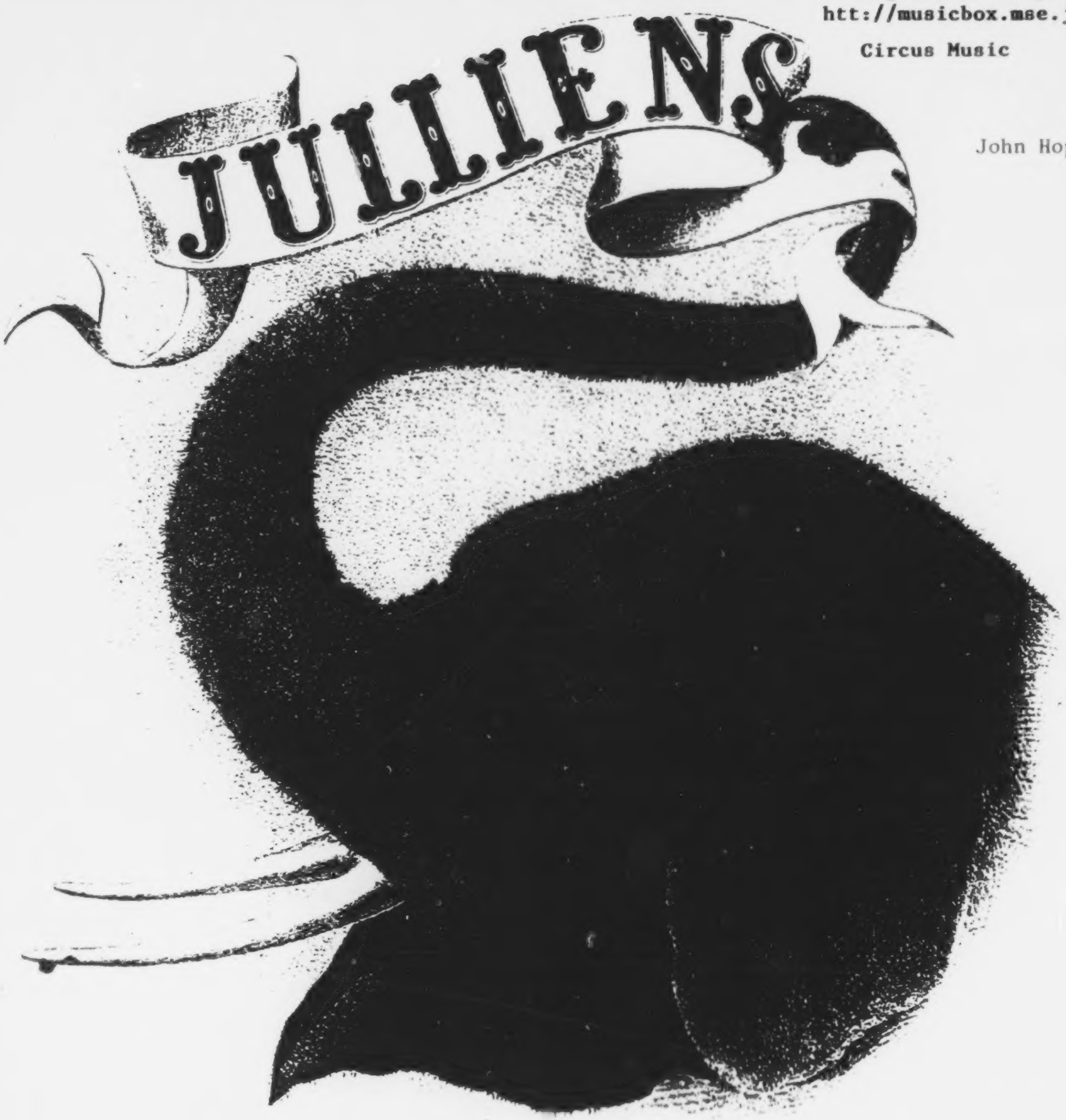
k=raphael semmes (k search retrieves Semmes as author and subject simultaneously)

k=john mcintosh kell

DRAFT by A. Watson with C. Center 8-2-95

Digitized example
http://musicbox.mse.jhu.edu
Circus Music

John Hopkins



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ELEPHANT
POLKA

Price 25 cts. nett.

Jullien

93

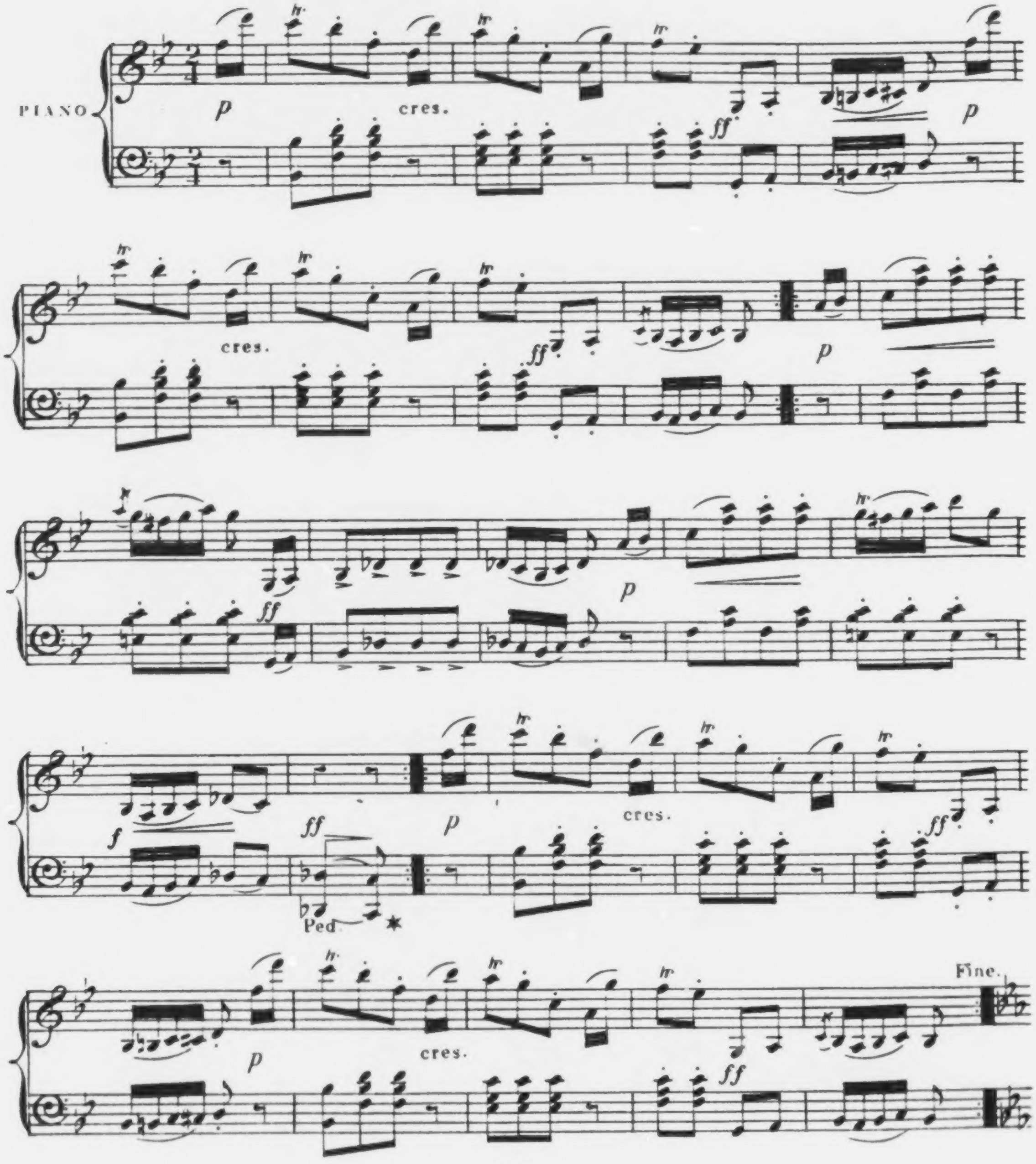
Baltimore published by F.D. BENTEEN & Wm. F. MAYO New Orleans

99

John Hopkins

THE ELEPHANT POLKA.

JULLIEN.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Queen Marie of Romania, Photoalbum

[illegible]

Prepared by Cara Gilgenbach

Brief Biographical Note

Queen Marie was born on October 29, 1875 in Kent, England to Alfred, Duke of Edinburgh and the former Grand Duchess Marie Alexandrovna of Russia. She was the granddaughter of Queen Victoria. In 1893 Marie married Ferdinand of Romania, and became Queen of the Romanians in 1914. She had six children: Carol, Elisabeth [Lisabeta], Marie [Mignon], Nicolas, Ileana, and Mircea who died at a very young age. During World War I, Queen Marie volunteered as a Red Cross nurse serving sick and wounded Romanian soldiers, many of whom were victims of cholera and typhus epidemics. After the war, she attended the Versailles Conference to help fight for Romanian territorial demands. She died in 1938.

Contents of the Album

This photoalbum features photographs of Queen Marie and her family from 1904. There are numerous photos of Marie's children, her friends and relatives, the Royal Family's horses, and the Romanian countryside. There are several portrait-style photographs of Queen Marie taken in Cotroceni, the Romanian Royal Palace located near Bucharest. Also featured are photos taken on a family boat trip on the Danube River. Marie created the album and hand-lettered the accompanying text.

This is one of many albums and scrapbooks that are part of the Queen Marie Collection. Many of these books were so brittle that photographs and clippings had to be removed in order to be preserved. This 1904 photoalbum is one of the few albums left intact. However, it is also quite fragile. Each page of the album has been scanned in order to minimize use of the actual album. This electronic site provides visual access to the album in its entirety.

Moving Through the Album

Each page of the photoalbum has been loaded as a separate Web page. To view the contents of the album first click on the image below. This will link you to a grouped listing of album pages. Choose any of these groups of pages, and you will be linked to a numerical list of each page in that group. Once you link to an individual album page, you have a number of options:

- You can move to the next page in sequence.
- You can return to the Contents page.
- You can go to this Introductory page.
- You can go to the Special Collections Home Page.

Future Actions

This page eventually will be linked to an inventory for the entire Queen Maria of Romania Collection of manuscripts, photos, correspondence, clippings, and personal belongings held by KSU's Department of Special Collections & Archives.

Page 66 of album

Go to page 67 of album

Go to the Contents page

Go to the Introductory page

Go to the Special Collections & Archives Home Page

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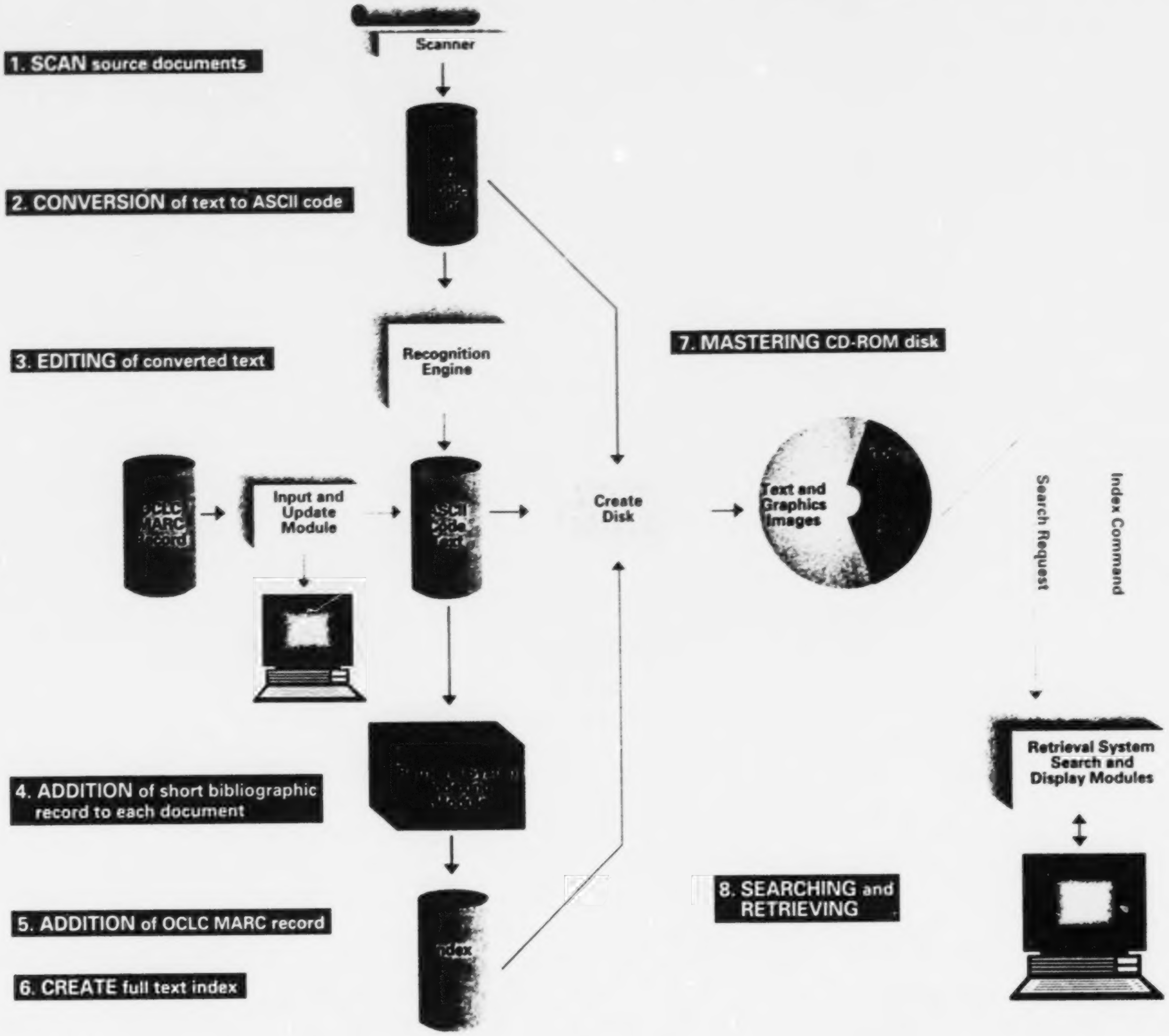
Text digitizing at the NATIONAL AGRICULTURAL LIBRARY


1. SCAN source documents
Scanner
2. CONVERSION of text to ASCII code
3. EDITING of converted text
Recognition Engine
OCLC MARC Record
Input and Update Module
ASCII Code Text
Create Disk
7. MASTERING CD-ROM disk
Text and Graphics Images
Search Request
Index Command
Retrieval System Search and Display Modules
4. ADDITION of short bibliographic record to each document
5. ADDITION of OCLC MARC record
6. CREATE full text index
Index
8. SEARCHING and RETRIEVING

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NATIONAL AGRICULTURAL LIBRARY
National Agricultural Text Digitizing Program Services: Optical Scanning of Agricultural Literature Cost and Time Estimates

ASSUMPTIONS:

- There will be about 6,000-6,500 pages per CD-ROM.
- Each database will include bit-mapped page images and bibliographic records.
- All page images will be created as Group 4 TIFF images.
- Retrieval software will be Windows Personal Librarian (WPL).
- NAL will donate equipment costs and administrative overhead (approximately $9,800 per CD-ROM).

COSTS:

Task	Cost		
Data preparation and input, scanning, quality control, and storage on WORM (6,000 pp.), including supervision and benefits	$ 8,100		
Creation of bibliographic records with descriptive indexing, inclusion in AGRICOLA.* (with abstracts / without abstracts)	$11,000	/	$ 9,400
Build database, index with WPL, and premaster to 9-track tape.	$ 7,200		
Master CD-ROM with 500 copies	$ 3,500		
WPL Retrieval Software (on CD-ROMs).	$15,000		
Total for CD-ROM	**$44,800**	/	**$43,200**
Cost per Page	**$ 7.47**	/	**$ 7.20**

TIME:

Total time: 4 months

---

*No charge for creating bibliographic records if they are already done and in AGRICOLA

August 17, 1992

National Agricultural Library

PROGRESS REPORT # 2

15 January to 15 April 1955

To: Department of the Army, Office of Surgeon General.

Contract No. DA-49-007-MD-543.

W. D. Salmon, H. E. Sauberlich, E. L. Hove
H. D. Alexander and E. J. Day

Department of Animal Husbandry and Nutrition
Alabama Polytechnic Institute
Auburn, Alabama

Nutritive Value and Long-Range Effects of Irradiated Foods in Animals with Special Reference to Chemical and Nutritive Changes in Vitamins, Choline and Related Nutrients.

National Agricultural Library

Abstract

An investigation with weanling rats to determine the overall effect of gamma irradiation (approximately 3,000,000 rep) on the water soluble vitamins of uncooked ground beef is in progress. The first 2-weeks' results indicate the following:

(1) Rats receiving irradiated meat diets without added vitamin supplements consumed less food and gained less weight than did those receiving non-irradiated meat diets. This suggests that the irradiation caused some destruction of water soluble vitamins in the meat.

(2) Rats receiving irradiated meat diets with added vitamin supplements consumed amounts of food and made gains in weight comparable to those receiving non-irradiated meat diets with added vitamin supplements.

Progress to Date

A screening test with weanling rats to determine the effect of gamma irradiation (3,000,000 rep) on the water soluble vitamins of uncooked ground beef as well as any overall toxic or other effects that would decrease growth rate is in progress. An additional objective of this experiment is to study technique problems associated with the feeding and storage of fresh meat diets. The composition of the diets is given in Tables 1 and 2.

Table 1
Percentage Composition of Screening Test Diets

	Diet Number								
	Basal	A2	A3	A4	A5	A6	A7	A8	A9
Casein	25.0	23.3	23.3	20.4	20.4	17.7	17.7	10.6	10.6
Lard	19.0	17.0	17.0	15.0	15.0	11.0	11.0	3.0	3.0
Sucrose	47.0	46.3	48.3	46.8	48.8	44.7	46.7	42.2	44.2
Alphacel	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Salts	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
C.L. Oil	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Vit. Mix	2.0	2.0	---	2.0	---	2.0	---	2.0	---
Beef	---	4.4	4.4	8.8	8.8	17.6	17.6	35.2	35.2

Ground beef was actually added as raw, undried meat, but was calculated on dry basis (100 gm undried meat equals 44 gm of dried meat). Diets were mixed that contained irradiated, non-irradiated, and non-irradiated master control ground beef, comprising a total of 25 diets.

Table 2
Composition of Vitamin Mixture[1]

Vitamin	Amount
	mg/kg of diet
Thiamine	6.0
Riboflavin	6.0
Pyridoxine	6.0
Inositol	1000.0
Ca Pantothenate	30.0
Niacin	25.0
2-methyl-1, 4-napthoquinone	5.0
Biotin	0.5
a-Tocopherol	100.0
Choline chloride	2000.0
Folacin	2.0
Vitamin B_{12}	0.03

---

[1] The vitamins except a-tocopherol were mixed in sucrose so that 2 gm. of the mixture/kg would furnish the desired amounts of vitamins. The a-tocopherol was added to the cod liver oil for the vitamin supplemented diets.

National Agricultural Library

TWO NEW SOIL THERMOMETERS[1]

J. C. Russel and E. G. Jones[2]

A new type of recording soil thermometer has been described by Keen and Russell (2).[3] This was devised by A. D. Hall and has been in use at Rothamsted for over ten years. The expanding element of the thermometer is a 12-foot pipe of iron inside of which is a rod of zinc. The iron and zinc are attached at one end. At the other end a recording clock is rigidly fixed to the iron pipe and the recording arm on the clock is attached to the zinc rod. The relative expansion of the one metal to that of the other, when properly magnified by levers, is sufficient to indicate temperature differences of .5° C. The pipe is buried at any desired depth below the surface and the clock is set up in a masonry lined pit. A ½ inch bar of zinc and an iron pipe of 1¼ inch external diameter were used.

A NEW METAL THERMOMETER

On investigating the possibility of the construction of such a recording thermometer to use in connection with nitrate studies in progress at this Station, it was found to be impossible to get a zinc rod. There is no other metal which has a high enough coefficient of expansion and sufficient rigidity to be used as a substitute for zinc without increasing the length of the pipe or the complexity of the recording lever system to an impractical degree. However, it was found that a combination of brass and Invar metal is practically identical with iron and zinc for use for differential expansion with temperature changes. Invar metal, an alloy of iron and nickel, is peculiar for its low coefficient of expansion. Its rigidity is equal to soft steel and its hardness permits it to be threaded and drilled with satisfaction. It does not corrode as readily as does iron or zinc. A rod of Invar metal inside a brass pipe has a further advantage over zinc in iron in that temperature lag from pipe to rod is practically insignificant.

Table 1 shows a comparison of the properties of iron, zinc, brass, and Invar, (1).

Table 1.—*Showing certain physical properties of Invar metal, iron, zinc, and brass.*

Metal	Coefficient of expansion	Modulus of rigidity Dynes per sq. cm.	Young's modulus Dynes per sq. cm.
Iron	$.12 \times 10^{-4}$	8.0×10^{11}	20×10^{11}
Zinc	.26	3.4	9
Brass	.19	3.7	9
Invar	.009	5.6	14

---

[1] Contribution from the Department of Agronomy, University of Nebraska, Lincoln, Nebr. Received for publication December 10, 1924.

[2] Associate Professor of Soils and Graduate Assistant, respectively.

[3] Reference by number is to "Literature Cited," p. 99.

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National Agricultural Library

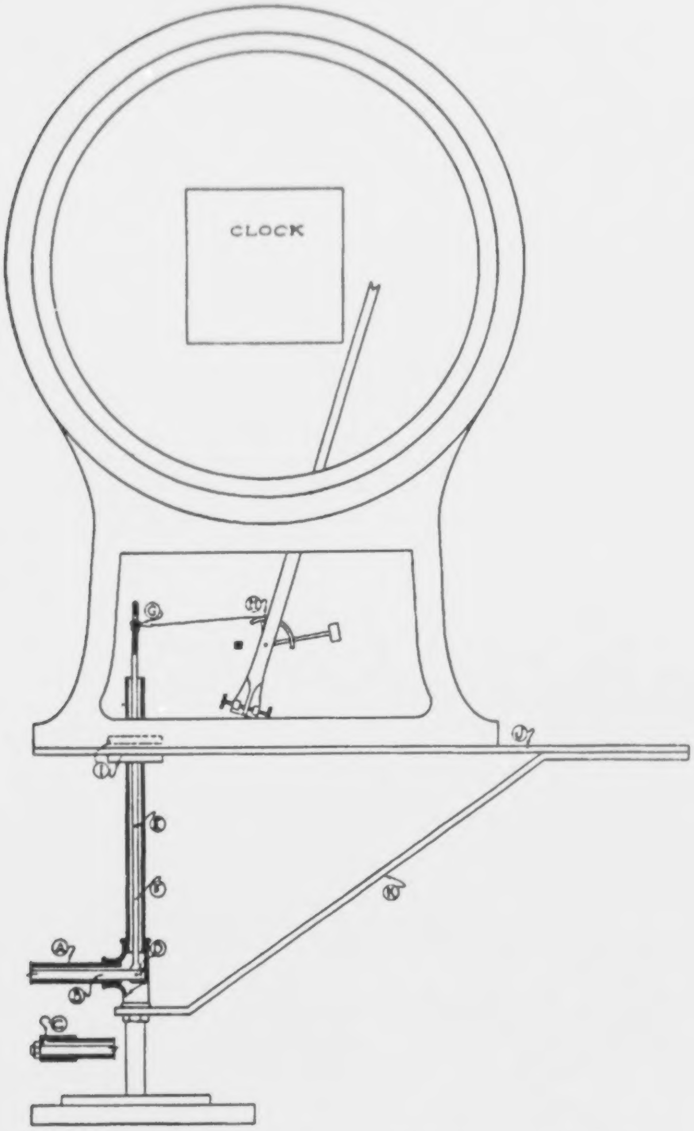
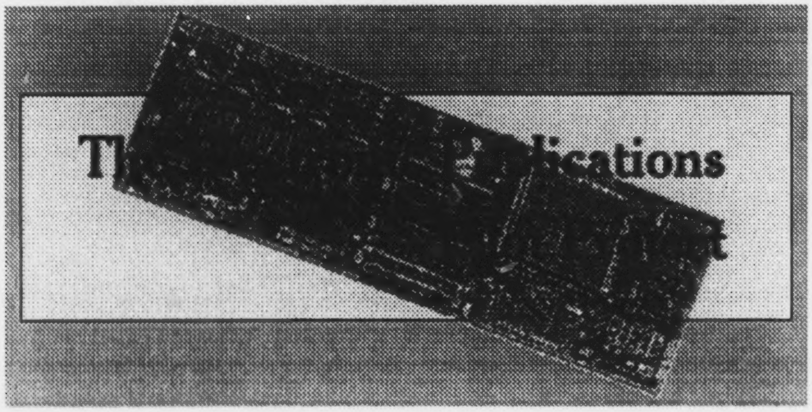


FIG. 1. Showing construction of new metal thermometer and attachment to recording apparatus.

| NL Home |



National Library of Canada Electronic Publications Pilot Project

The National Library of Canada (NLC) has initiated the Electronic Publications Pilot Project (EPPP) to identify and to understand issues that libraries will encounter in handling electronic publications and online collections. The Project began in June 1994 and is expected to end in April 1995.

As a priority, the EPPP will incorporate a small number of formally published Canadian online journals. These journals are being acquired, catalogued, and permanently stored at the NLC. Public access is being provided on the Internet through Gopher and the World Wide Web. EPPP cataloguing entries, including the Uniform Resource Locators (URLs) of EPPP titles are available on NLC Systems including AMICUS.

The Project will deliver recommendations for NLC policies in the areas of acquiring, cataloguing, storing, preserving, and providing service for electronic publications. Issues such as copyright, security, royalties, billing and technical standards will also be addressed.

A final report which highlights issues encountered during the course of the Project and which makes recommendations for the effective handling of electronic publications at the NLC will be written. This report will be made publicly available upon its completion.

The Electronic Publications Pilot Project is intended to be a first step in planning for using the AMICUS Library System to manage full-text electronic publications at the National

Library of Canada.

Canadian Electronic Publications in the project are organized here by:

- ☐ Title
- ☐ Subject
- ☐ Title keyword search
- ☐ Archive keyword search

The NLC would like your comments on the online presentation of these journals. As well, we would like your comments on any aspect of the treatment of electronic publications in libraries.

Send comments to:

nancy.brodie@nlc-bnc.ca

or

Nancy Brodie
National Library of Canada *Phone: (613) 995-4135*
395 Wellington Street *Fax: (613) 996-7941*
Ottawa, ON K1A 0N4

National Library of Canada

Electronic Publications

Title List

- ☐ Ability Network
- ☐ The Anarchives (text)
- ☐ Annual Report, National Library of Canada
- ☐ Axe
- ☐ Big Dreams
- ☐ Big Dreams - Back Issues (95-11-07)
- ☐ Branchez-Vous!
- ☐ Canadian Journal of Educational Administration and Policy
- ☐ The Children's Reader
- ☐ Chorus: Academic & Educational Computing in the Humanities
- ☐ CM
- ☐ Conférences de la Bibliothèque nationale du Canada
- ☐ Cropduster
- ☐ CTHEORY
- ☐ The Daily
- ☐ DiSCORDER
- ☐ The Disseminator (html)
- ☐ The Disseminator (text)
- ☐ Early Modern Literary Studies (html)
- ☐ Early Modern Literary Studies (text)

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- ☐ L'écrit en rose
- ☐ FLASH INFORMATION
- ☐ Flash réseau
- ☐ Flash réseau (html)
- ☐ Government Information in Canada/Information Gouvernementale au Canada
- ☐ green Cart
- ☐ IDFORUM
- ☐ infoCycle
- ☐ Information, Communication and IDRC
- ☐ Information, Communication et le CRDI
- ☐ InterFace Magazine
- ☐ Interface Magazine - Back Issues (95-11-10)
- ☐ International Teletimes (html)
- ☐ International Teletimes (html) - Back Issues (95-11-06)
- ☐ International Teletimes (text)
- ☐ Lecture Series at the National Library of Canada
- ☐ Liaison (Edition français)
- ☐ Liaison (English edition)
- ☐ Liste Hebdomadaire
- ☐ Literary Speakers at the National Library of Canada
- ☐ Mediatribe
- ☐ National Library News

☐ National Library News (html)

☐ Network Notes

☐ Network Notes (html)

☐ Nouvelles de la Bibliothèque nationale

☐ Nouvelles de la Bibliothèque nationale du Canada (html)

☐ NWHQ

☐ NWHQ - Back Issue (95-12-08)

☐ The Proofreader

☐ Le Quotidien

☐ Rapport annuel, Bibliothèque nationale du Canada

☐ The Reader

☐ Report of the Nova Scotia Auditor General

☐ Séances de lectures de la Bibliothèque nationale du Canada

☐ StageWorks

☐ Surfaces

☐ Theory and Applications of Categories

☐ Weekly Checklist

☐ What's Up Doc?

PENN STATE UNIVERSITY LIBRARIES' DIGITAL PRESERVATION PROJECT

FACT SHEET: ANSWERS TO FREQUENTLY ASKED QUESTIONS (FAQs)

What is the Digital Preservation Project?

The University Libraries' Digital Preservation Project was launched in June 1992 as a demonstration project to test the feasibility and improved accessibility features of digital technology as a preservation and access option for *archival materials.*

What are the goals of the project?

Specific goals of the project are: 1) to test the ability to create similar digital images from a variety of source documents; 2) to reconfigure portions of a dispersed archival collection while maintaining the original file integrity; 3) to transmit digital files over data networks; and 4) to provide print-on-demand capabilities.

What is the time frame of the project?

The project started in June 1992 and continues.

How is the project funded?

For the time period June 1992 through December 1994, the project was funded in part by the Commission on Preservation and Access, the Xerox Corporation and the Pennsylvania State University. Since, January 1995, the University Libraries have provided financial support for project staffing, equipment and supplies.

What collections were targeted for the project?

Two heavily used archival collections were targeted for the project: the Steel Workers' Organizing Committee (SWOC) Papers and the Pennsylvania Agricultural County Agent Report collection.

What are the size and condition of the collections?

The SWOC collection, dispersed among six separate collections, dating 1936-1941, contains over 14,000 fragile loose materials including typewritten reports and letters, newspaper clippings, hand-written correspondence and memorandums.

The Pennsylvania Agricultural County Agent Report collection encompasses more than 315,000 brittle pages consisting of weekly statistical reports, letters, log books, and photographs from each of the sixty-seven counties. The time period of collection spans seventy years, 1912-1983.

Who is the system vendor?

Xerox Corporation.

Describe your project system configuration.

At the **University Libraries' site** a single digital image workstation has been installed. System components include a Xerox WG-40 high resolution scanner; a Compaq ProSignia 486/33 Model 1050 (with 16 MB of RAM) platform capture/access server workstation; a 19" dual page monochrome high resolution monitor; a Sony 5.25" magneto optical disk drive; and a Xerox 4030 laser printer.

Xerox Documents on Demand system software is used to control the scanning, compressing, indexing, storing, retrieving, and transmitting of print requests. Specific software components include Xerox Documents Management Services, DOS/Windows operating system, Beame & Whiteside TCP/IP Communications Software and Gupta SQLBase for Windows.

Across campus at the **Business Services site** the system architecture consists of a Xerox Production Publisher (DocuTech) and the Xerox Production Printing Service software residing on a Soleil 0.9 Production Printing Server front end processor (a Sun SPARC system). The Soleil server provides the network connectivity and PostScript conversion for the print requests sent to the DocuTech. The DocuTech produces high resolution quality prints at 600 dots per inch.

All equipment components at the University Libraries' site and at the Business Services facility are linked to the Penn State Data Backbone.

What level of staff are involved in scanning?

Currently, one part-time wage staff is engaged in the document preparation, scanning and quality control inspection of scanned images. A total of 40 hours a week are spent on production scanning and other system-related tasks.

How long did it take to reach production stage?

After the initial on-site training by Xerox personnel, an additional two week period of experimentation and practice was necessary before the staff reached full production scanning.

What are the best settings for text/line art, faded text and photographs?

Text/line art documents can be described as original documents that consist of solid lines, handwritten strokes, typewritten documents, straight text, and line figures (charts, logos and drawings). These documents are scanned using the Text/Line Art setting and enhanced by manipulating the darkness, sharpness, light text, reduce paste-up, reduce background and invert images scanning control options.

For example, to capture a faded text in pencil: select the light text option to capture more clearly the faded notes in pencil and use the darkness and sharpness options to enhance the amount of black in the image and the degree of crisp detail.

Photographs, or continuous tone originals, consist of different shades of gray and varying degrees of tonal quality. Photographs are scanned using the Photograph setting and are enhanced by choosing the appropriate darkness, contrast, sharpness, halftone screen, descreen, reduce moire, reduce background, invert image, highlights, midtones and shadow controls to capture a quality image.

What level of resolution is used when scanning?

Source documents are scanned at 600 pixels per inch.

What level of indexing is performed?

Manual indexing of author, title, keywords and dates are input for each document folder represented in the collection.

What is the scanning rate?

For archival materials: 75 pages per hour (variety of formatted text)

For bound materials: 115 pages per hour (similar text)

For disbound/loose materials: 130 pages per hour (similar text)

How many pages have been scanned to date?

As of December 15, 1995, 134,941 pages have been scanned from the two archival collections: PA Agricultural County Agent Report Collection and the Steel Workers' Organizing Committee (SWOC) Papers.

How many images can one optical disk hold?

Each disk can hold 644 MB or approximately 2500 pages depending on the density of the images scanned. The higher the density of an image, the more memory required for storage.

For more information on this project contact:

Sue Kellerman, Preservation Librarian
The Pennsylvania State University
E506 Pattee Library
University Park, PA 16802-1895
phone: (814) 865-1858 fax: (814) 863-7293
e-mail: lsk@psulias.psu.edu

THE PENNSYLVANIA STATE UNIVERSITY

University Libraries' Digital Preservation Project
Conversion Workstation

Capture Station

Hardware:

Compacq ProSignia 486/33 Model 1050, 16 MB memory, 1.05 GB hard drive, 3.5" 1.44 MB floppy disk drive, 5.25" 1.2 MB floppy disk drive

Xerox WG-40 high resolution scanner, 11" X 17" flatbed platen

Cornerstone Dual page 120 19" monochrome high resolution monitor

Compacq serial mouse

Netflex Ethernet interface card

Xerox 4030 laser printer

Software:

Microsoft DOS version 6.0

Microsoft Windows version 3.1

Xerox Documents on Demand software

Beame & Whiteside TCP/IP communications software version 3.0

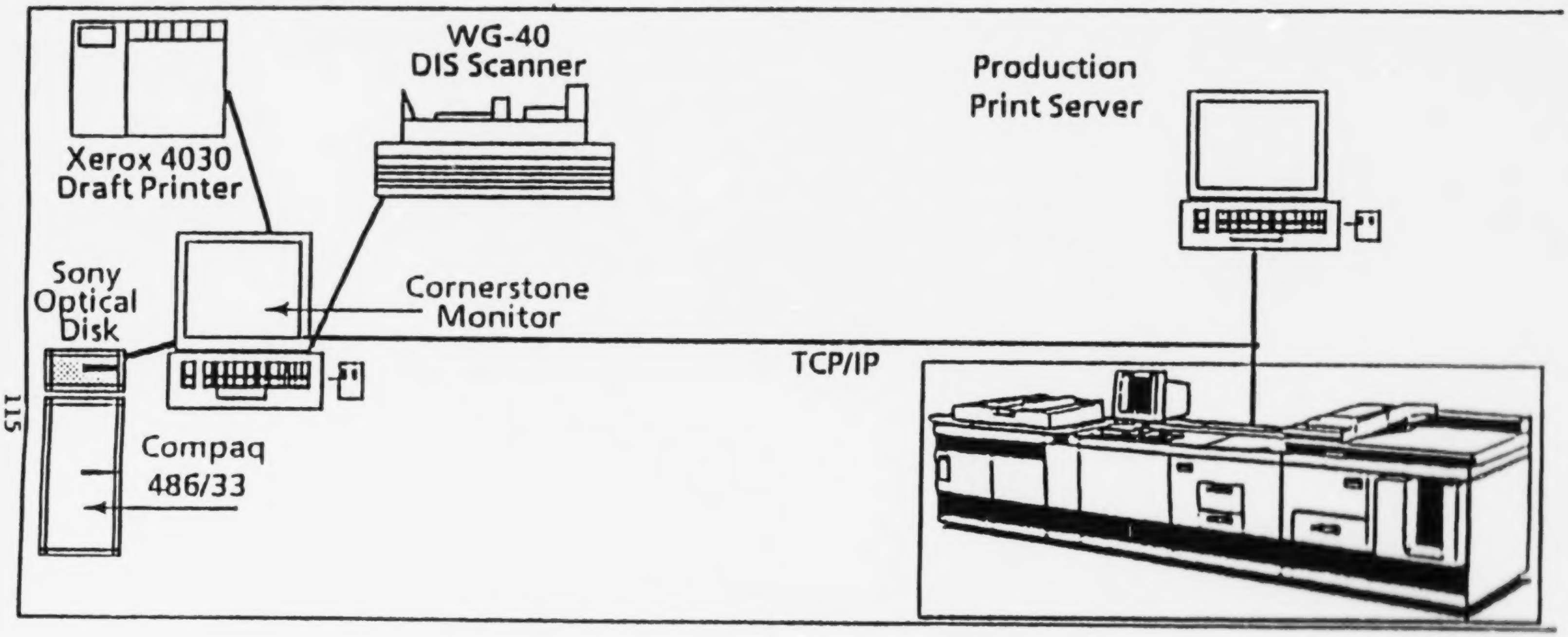
Gupta Technologies, Inc. DBMS software

PC-NFS connectivity software

Optical Storage Sub-system

Sony 5.25" Optical Drive

Sony 5.25" rewritable magneto optical disks (EDM-1DA0SA)


WG-40
DIS Scanner
Production
Print Server
Xerox 4030
Draft Printer
Sony
Optical
Disk
Cornerstone
Monitor
TCP/IP
Compaq
486/33

University Libraries System Configuration

THE PENNSYLVANIA STATE UNIVERSITY
University Libraries

DIGITAL SCANNING OPERATIONS
Guidelines and Parameter Settings

The following are "ball park" scanning parameters we have found most useful when scanning a variety of source documents.

TEXT/LINE ART

When scanning printed text on white paper use:

Initial settings:
Darkness: -10
Sharpness: -1

If text is light (faded) select *"MORE"* and choose *Light Text* from the options listed in the open window. Once *Light Text* is chosen, close the window. The normal scan tool window will then appear. Select *Rescan*. Adjust parameters until desired image is captured.

PHOTOGRAPHS

When scanning black and white photographs or continuous tone use:

Initial settings:
Darkness: -2
Contrast: -1
Sharpness: +5
Select *"MORE"* to get additional options:

Halftone: 106
Highlights: +5
Midtones: 2 or 3
Shadows: -5
Select reduced background: X (in box)

We have found that making adjustments to Darkness, Contrast, Halftone and Midtones will enhance image capture. Make adjustments in small increments. Be very patient when scanning photographs!!

Note: The **Fine Halftone** setting works best for glossy magazine-type photos. Use the same parameters as for **Photograph** but select *"MORE"* to choose different Descreen settings of 106, 120, or 133.

Page 2 — Guidelines and Parameter Settings

COURSE HALFTONE

When scanning black and white illustrations/photos from newsprint (not line art) use:

Initial settings:
Darkness: -10 to -15
Contrast: -1 to -2
Reduce Moire: 1 to 3

Again, make adjustments in small increments to enhance the capture of these image types.

For more information on image quality and enhancement see *Image Quality Features*, XDOD Documents on Demand, Section 7, Xerox Corporation, June 1994.

lsk 7/95

Penn State

BELL PHONE COURT 404
AN ORGANIZATION FOR AGRICULTURAL IMPROVEMENT

ALLEGHENY COUNTY FARM BUREAU

CO-OPERATING WITH
THE PENNSYLVANIA STATE COLLEGE
UNITED STATES DEPARTMENT OF AGRICULTURE
PITTSBURGH, PENNSYLVANIA

HEADQUARTERS
PITTSBURGH COMMERCIAL CLUB
FIRST NATIONAL BANK BLDG.

COUNTY AGRICULTURIST
SERVICE FREE

necessary

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123

These

Penn State

BELL PHONE COURT 404
AN ORGANIZATION FOR AGRICULTURAL IMPROVEMENT

ALLEGHENY COUNTY FARM BUREAU

CO-OPERATING WITH
THE PENNSYLVANIA STATE COLLEGE
UNITED STATES DEPARTMENT OF AGRICULTURE

HEADQUARTERS
PITTSBURGH COMMERCIAL CLUB
FIRST NATIONAL BANK BLDG.

COUNTY AGRICULTURIST
SERVICE FREE

PITTSBURGH, PENNSYLVANIA

June 15, 1915.

1. Farm visits and evening meetings.
2. Good Roads Day May 26th.
3. Farm Bureau Exhibit at pittsburgh Commercial Club Carnival.

1. From the very first I have been requested by the farmers to hold evening meetings. These meetings were usually accompanied by farm visits in the afternoon. Since January 1, 1915, I visited 62 farms and spoke at 123 meetings with a total attendance of 5017. This kept me busy nearly every evening throughout the winter and served a great many farmers. The farm visits aided the farmer directly.

2. A Good Roads Day organization was perfected with the necessary officers. $ 1500 was raised to pay advertising expenses and by tools. Over 150 road machines and several drags were used. In all 5000 to 6000 people volunteered on that day. The results are lasting and insure holding a similar day next year. No work was done on the imporved roads and dirt roads, (1200 miles in County) were the only ones touched.

3. A large number of country and city people visited the Farm Bureau exhibit at the "Made In U. S. A. Prosperity Carnival" in East End, Pittsburgh. The exhibit was of an educational type and served as a bureau of information for many people desiring advise on agricultural problems.

These projects are the most important since January 1, 1915.

Enhanced Digitized Image Printed on Xerox DocuTech

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Penn State

ANNUAL REPORT

of

ALLEGHENY COUNTY AGRICULTURAL EXTENSION ASSOCIATION

Strawberries from Soergel Demonstration Patch.

Courtesy Pittsburgh-Sun Telegraph

For the Year

1930

Enhanced Image Printed on Xerox DocuTech

JOHN NOLEN'S
MADISON: A MODEL CITY

An imaging project of the General Library System
of the University of Wisconsin-Madison

Background

Nolen's 1911 report to the Madison Park and Pleasure Drive Association is a preeminent example of the urban landscape movement at the turn of the century. The General Library System decided that its importance, along with increasing recognition of Nolen's work both nationally and internationally, merited increased availability through electronic technologies. The book is the first in the Libraries' recently established program of digitizing significant cultural works, ensuring both their preservation and their accessibility.

CD-ROM Version

Besides its importance in the history of design, the book presented a variety of challenges for reformatting, including a mixture of text, half-tone illustrations, three oversized maps, and other line art.

Several techniques were involved in reformatting the book. First, each page was converted to a digital image file using a Kodak DCS 420 Digital Camera and Adobe Photoshop 3.0. Pages were captured at a resolution of approximately 200 pixels per inch. Maps were captured at lower resolutions. The resulting images were combined into a single file using Adobe's Portable Document Format, which provides a variety of tools for browsing and creating links in a PDF file. The combination of camera and software allowed retention of the exact layout and formatting of the original book. The resulting product can be made available to users on compact discs.

Web Version

Another version of the book makes use of the rapidly expanding World Wide Web technology. This approach provides a text-searchable product. The existing images from the digital camera were used to provide the in-line and externally linked illustrations. Pages were scanned at 300 pixels per inch on a flatbed scanner and fed through optical character recognition software to produce plain ASCII text files. The files were corrected and marked up using HTML 3.0 standard in order to integrate the images into the text and create hypertext links for convenient browsing. Still under development, the Web version will be made publicly available later this summer.

Contacts

Sandra Paske, Preservation, (608/262-2332), paske@doit.wisc.edu
Peter Gorman, Automation, (608/265-5291), pcgorman@facstaff.wisc.edu

Yale University Library
Project Open Book

Project Open Book is a research and development program that is exploring the feasibility and costs of large-scale conversion of preserved material from microfilm to digital imagery.

Conversion: Create a 10,000 volume digital image library through conversion from microfilm. Evaluate issues of workflow, quality, and cost.

Distributed Physical Access: Enhance physical access to the 10,000 volume digital library by providing distributed access over the Yale campus network. Eventually, access over the Internet will provide access to scholars and students world-wide.

Intellectual Access: Enhance intellectual access to the 10,000 converted volumes through the creation of document structure and page number indexes. This will enable the scholar to go directly to a particular page or document structure element, such as a table of content. Full-text conversion via optical character recognition is not a part of the project.

Phased Approach

Project Open Book has and is unfolding in a sequence of phases, designed in part to allow the project to evolve as digital image technology changes. In the first phase of the project--the organizational phase--Yale conducted a formal bid process and selected Xerox Corporation to serve as its principal partner in the project. During the second phase--the setup phase--Yale acquired a single integrated conversion workstation, including microfilm scanning hardware and associated conversion and enhancement software; tested and evaluated this workstation; and made the transition to a fully engineered production system. In the third phase--the production-conversion phase--Yale is in the process of converting 3,000 volumes from microfilm to digital imagery, indexing the digital files using Xerox document structure software, cataloging the image files in Yale's bibliographic database, and storing the files on optical disks housed in a jukebox. Future phases will complete the conversion effort, evaluate the quality and usefulness of the digital library, and provide pubic access to the system.

Reports on Project Open Book and Digital Preservation

Waters, Donald J. *From Microfilm to Digital Imagery*. Washington, D.C.: Commission on Preservation and Access, June 1991.

Waters, Donald J. *Electronic Technologies and Preservation*. Washington, D.C.: Commission on Preservation and Access, June 1992.

Waters, Donald J. and Shari Weaver. *The Organizational Phase of Project Open Book*. Washington, D.C.: Commission on Preservation and Access, September, 1992.

Conway, Paul and Shari Weaver. *The Setup Phase of Project Open Book*. Washington, D.C.: Commission on Preservation and Access, June 1994.

Conway, Paul. "Digitizing Preservation: Microfilm and Paper Go Electronic." *Library Journal* (February 1, 1994): 42-45.

Conway, Paul. "The Implications of Digital Imaging for Preservation." *NEDCC Technical Leaflet*, June 1994.

Project Open Book Equipment Configuration

- *Processing Station* (3)
  Hardware:
    - Compac 486/60, 16 MB memory, 1.05 GB hard drive, 3.5" 1.44 MB floppy disk drive, 5.25" 1.2 MB floppy disk drive
    - Cornerstone Dual Page 120 19" monochrome monitor
    - Serial mouse
    - Netflex Ethernet interface card
    - Xionics Turbo Graphics accelerator board
    - UltraStor SCSI controller board
    - Xerox 4030 II laser printer

  Software:
    - Microsoft DOS ver. 6.2
    - Microsoft Windows ver. 3.1
    - Xerox Documents on Demand ver. 2.5.1
    - Xerox Postscript Integration System software
    - Gupta Technologies, Inc. SQLBase ver. 5.1.4
    - Beame & Whiteside TCP/IP communications software ver. 3.0
    - Sequoia Scanfix for Windows ver. 2.30

- *Microfilm Conversion Sub-system* (1)
  Hardware:
    - Mekel Engineering 400XL Microfilm Digitizer with 55 MHz camera crystal
    - Hewlett Packard LaserJet III

  Software:
    - Amitech Turbo Scan ver. 3.0
    - IPT Scan Optimizer ver. 6.0

- *Optical Storage Sub-systems*
  Hardware:
    - Sony 5.25" Optical Drive
    - Hewlet Packard Optical Disk Library (jukebox), Model 40T
    - Sony 5.25" 1.3 gb Magneto Optical Disks (EDM-1DA0s)

- *Document Server Sub-system* (1)
  Hardware:
    - Sun Sparc Station Model 10
    - External 535 mb auxilliary hard drive
    - External CD ROM drive
    - External 4 mm tape drive

  Software:
    - Solaris 1.1.1 Revision B operating system (SunOS 4.1.3)
    - MastarMind ver. 2.1 file management system

- Microfilm Technical Inspection Station
  Hardware:
    X-Rite Model 301 Densitometer
    Flourescent Lightbox
    Set of Film Rewinds (manual)
    8x and 15x Magnifying Lupe
    Calculator

The following technical manuals document the operation of the hardware and software components of Yale's digital imaging system.

- *Operating Instructions and Maintenance Manual for the Mekel M400XL Microfilm Digitizer*, Manual #5052, 1989. (Mekel Engineering, Inc., Diamond Bar, CA)
- *Amitech Turbo Scan Software, V3.0.* Installation and Operation Manual. (Amitech Corporation, Fairfax, VA)
- *IPT Scan Optimizer, V6.0., 1991.* (Image Processing Technologies, Inc., Vienna, VA)
- *Xerox Documents on Demand, V2.0C*, 1994. XDM/XQM User Guide. (Xerox Corporation, Webster, NY)
- *Beame & Whiteside Software, V3.0c*, 1993. (Beame $ Whiteside Software, Inc., Raleigh, NC)
- *MastarMind Version 2.1 for SUN*, 1994. (QStar Technologies, Rockville, MD)
- *Xerox DocuWeb User Guide* 1.0, 1995
- *Xerox Documents on Demand User Training Program Manual*, V2.0, 1994
- *Xerox DocuWeb User Training Program Manual*, V1.0, 1995

KEY

Equipment Configuration

A. Microfilm Scanner
B. Image Optimizer
C. Scanning Work Station
D. Optical Disc Drive
E. Indexing Work Station
F. Quality Control Work Station
G. File Management Work Station
H. Microfilm Cleaner
I. Optical Disc Jukebox
J. Shared Hard Drive
K. Document Server
L. Microfilm Reader
M. Densitometer
N. Film Inspection Light Box
O. Office Personal Computer
P. DocuWeb Hard Drive
Q. Ethernet Sub-net Hub
Other: (1) Telephone
(2) Printers

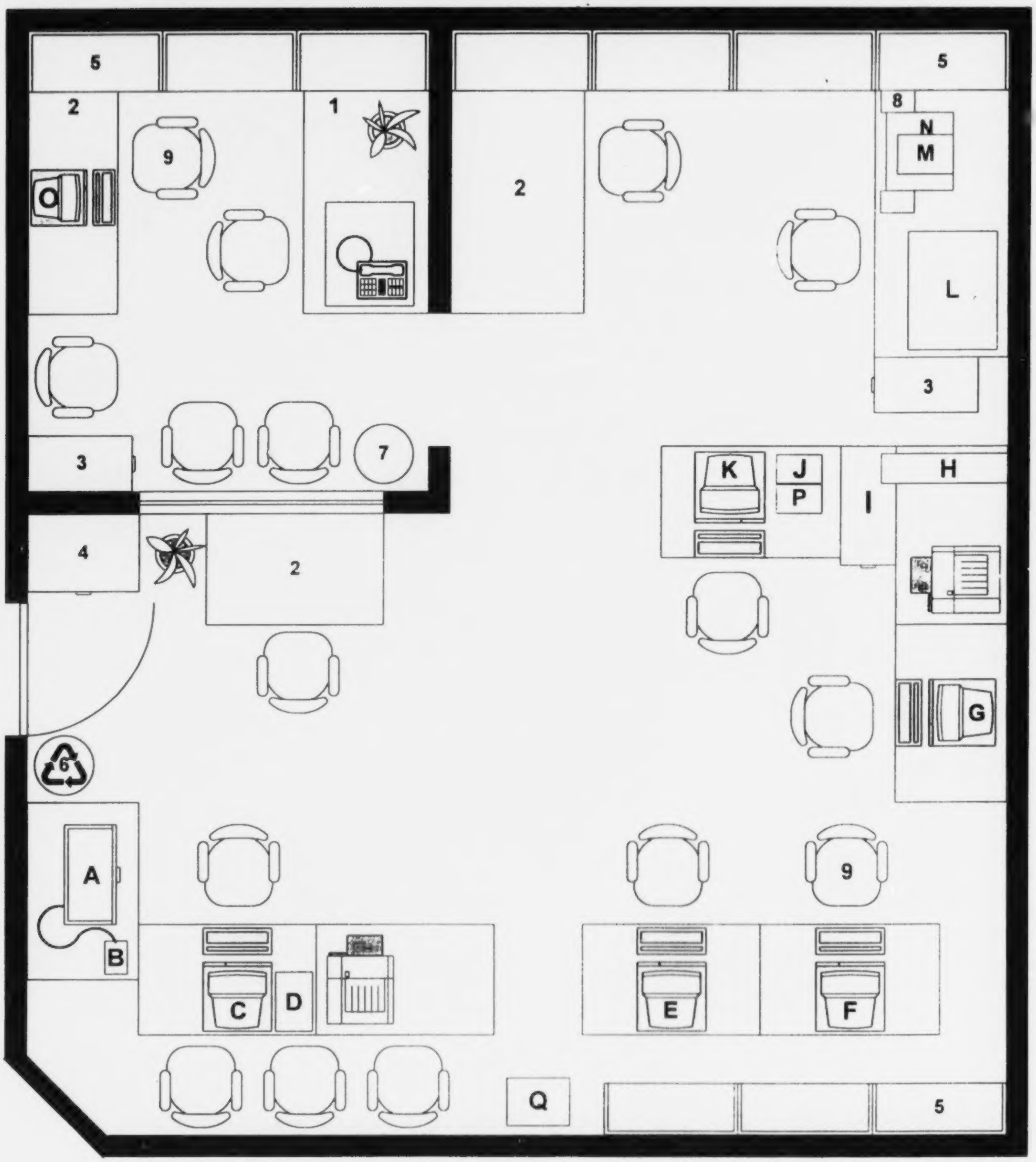
Furniture Configuration

1. (1) Desk
2. (12) Tables
3. (2) Filing Cabinets
4. (1) Supply Cabinet
5. Multiple Book Shelves
6. (1) Paper Recycling Bin
7. (2) Trash Cans
8. (1) Set of Microfilm Reels
9. (16) Office Chairs

Room Dimensions - (in feet and inches)

Total Room Space
22' x 24'9"
Office Space
8'10" x 10'4"
Ceiling Height
9'5"

PROJECT OPEN BOOK
FLOOR PLAN - ROOM CONFIGURATION


5
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D
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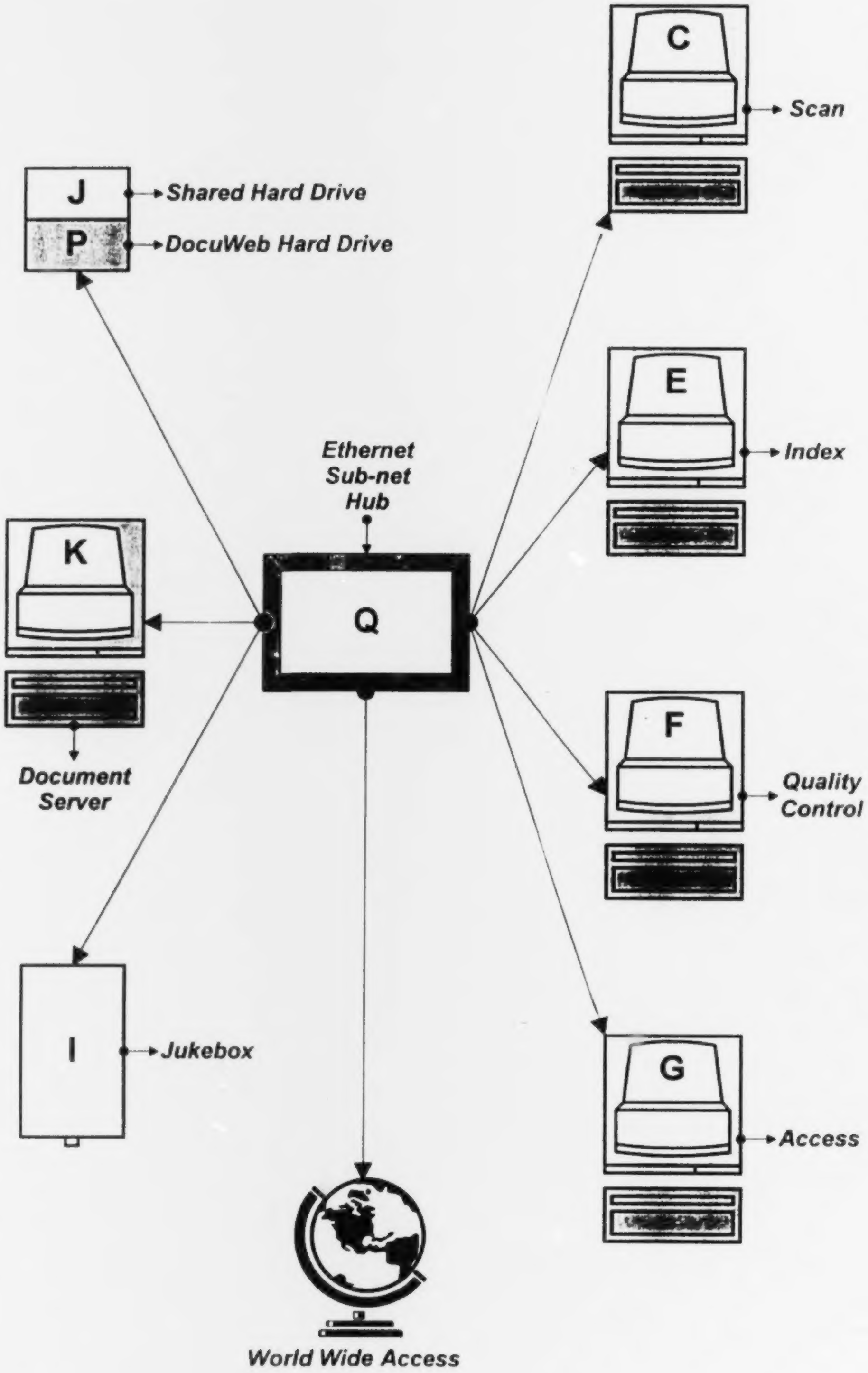
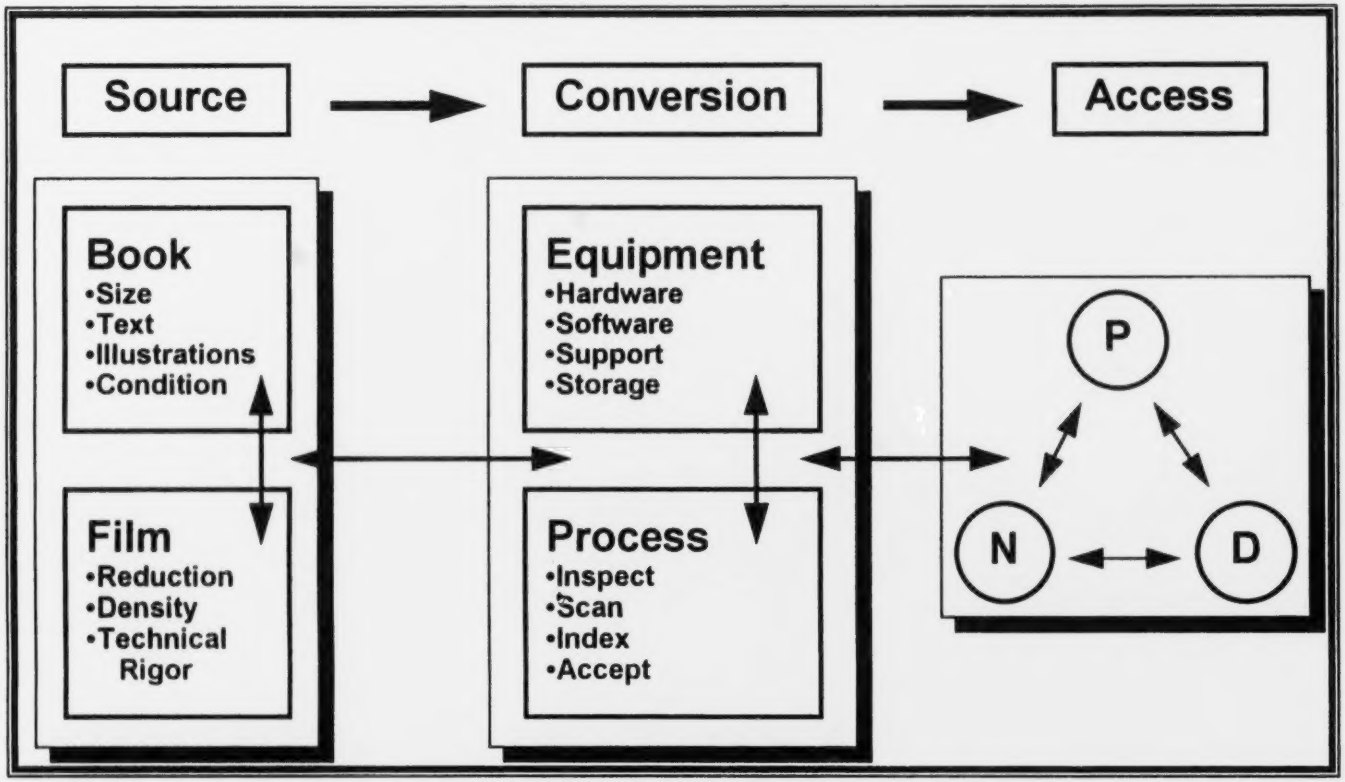
F
9
Q
5

LOCAL AREA NETWORK


C
Scan
J
Shared Hard Drive
P
DocuWeb Hard Drive
E
Index
Ethernet
Sub-net
Hub
K
Q
Document
Server
F
Quality
Control
I
Jukebox
G
Access
World Wide Access

Elements of a Process Model



Source → **Conversion** → **Access**

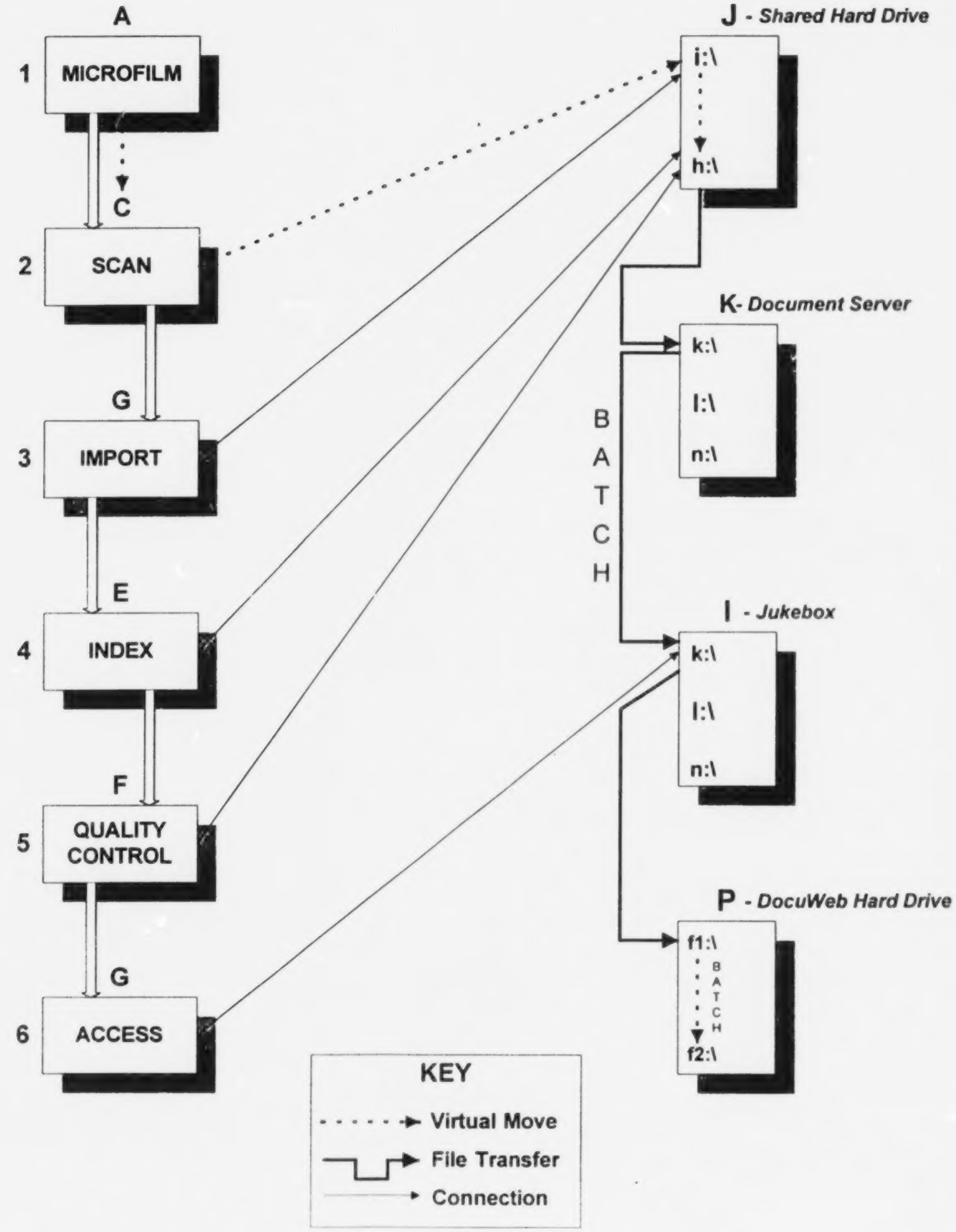
Book
- Size
- Text
- Illustrations
- Condition

Film
- Reduction
- Density
- Technical Rigor

Equipment
- Hardware
- Software
- Support
- Storage

Process
- Inspect
- Scan
- Index
- Accept

FILE MANAGEMENT PROCESS


A
1 MICROFILM
C
2 SCAN
G
3 IMPORT
E
4 INDEX
F
5 QUALITY CONTROL
G
6 ACCESS
J - Shared Hard Drive
i:\
h:\
K- Document Server
k:\
l:\
n:\
BATCH
I - Jukebox
k:\
l:\
n:\
P - DocuWeb Hard Drive
f1:\
BATCH
f2:\
KEY
Virtual Move
File Transfer
Connection

N#

Project Open Book Document Conversion Worksheet

*Call Number:*_______________

Yale

Orbis#

Bibliographic Information

Title:

Author:

Pub. Date: | No. Vols.:

Format: Book Serial Pam Newspaper

Film Inspection Data

Film Type: Pos. Neg. Com.

Orientation: Cine Comic

Contrast: High Low Brown

Print Type: Thin Normal Thick

Print Size: Large Normal Small | Measure:

Condition: Clean Noisy Marginal

Illustrations: Line-Half-Map-Photo-Chart-Other:

Density Readings (3):

Average Density:

Last Page Number:

File Management Information

Number of Images Scanned:

Total File Size (megabytes):

Batch File: N# - (?????X??)
I:\ | Date:

RDO File: Orbis# - (Y???????)
H:\ | Date:

Optical Disk File: Orbis# - (BAT??\Y???????)
L:\ | Date:

CON File: Orbis# - (webcol??\Name?\Y???????)
F:\ | Date:

Project Code Information

Directory Information (Jukebox) - Key Words (??MP??)
L Drive:

Directory Information (Disk Array) - Key Words (CL: ?)
F Drive: CL:

Conversion (tif - gif) Resolution (dpi):

Scanner Setup

Reduction Ratio:		Filters:	Sens:
Optimizer Preset:		WinSz:	Thick:
Contrast:	Brite:	Thr1:	Thr2:

Processing Steps	*Date*	*Init.*	*Time (min.)*	*Comments*
1. Inspection				
2a. Scan Benchmarking				
2b. Scan Setup				
2c. Scan Continuous				
2d. TurboScan Quality Control				
3. File Management and Transfer				
4a. Indexing: Pagination				
4b. Indexing: Structuring				
4c. Indexing: Orbis Cataloging				
5a. Quality Control				
5b. Registration				
5c. Move to Optical Disk				
6a. Copy to Disk Array				
6b. Conversion from tif to gif File				
7. DocuTech Printing				

Technical Notes

☐ (1). No Table of Contents
☐ (2). No Page Numbers
☐ (3). No Page: Insert Blank After Page#______
☐ (4). Splices After Page#_____,_____;_____,___
☐ (5). Skewed Pages
☐ (6). Pages Vary in Contrast
☐ (7). Faded Text
☐ (8). Tight Margins: Binding All
☐ (9). Noisy Margins: Top-Bottom-Left-Right-All

☐ (10). Cropped Text
☐ (11). Latent Images
☐ (12). Smudged Text
☐ (13). Ink Blotches
☐ (14). Mold Patches
☐ (15). Ripped Pages
☐ (16). Curved Text at Binding
☐ (17). Blurred Text on Microfilm
☐ (18). Inconsistent Margins on Microfilm

Other:

BEST COPY AVAILABLE

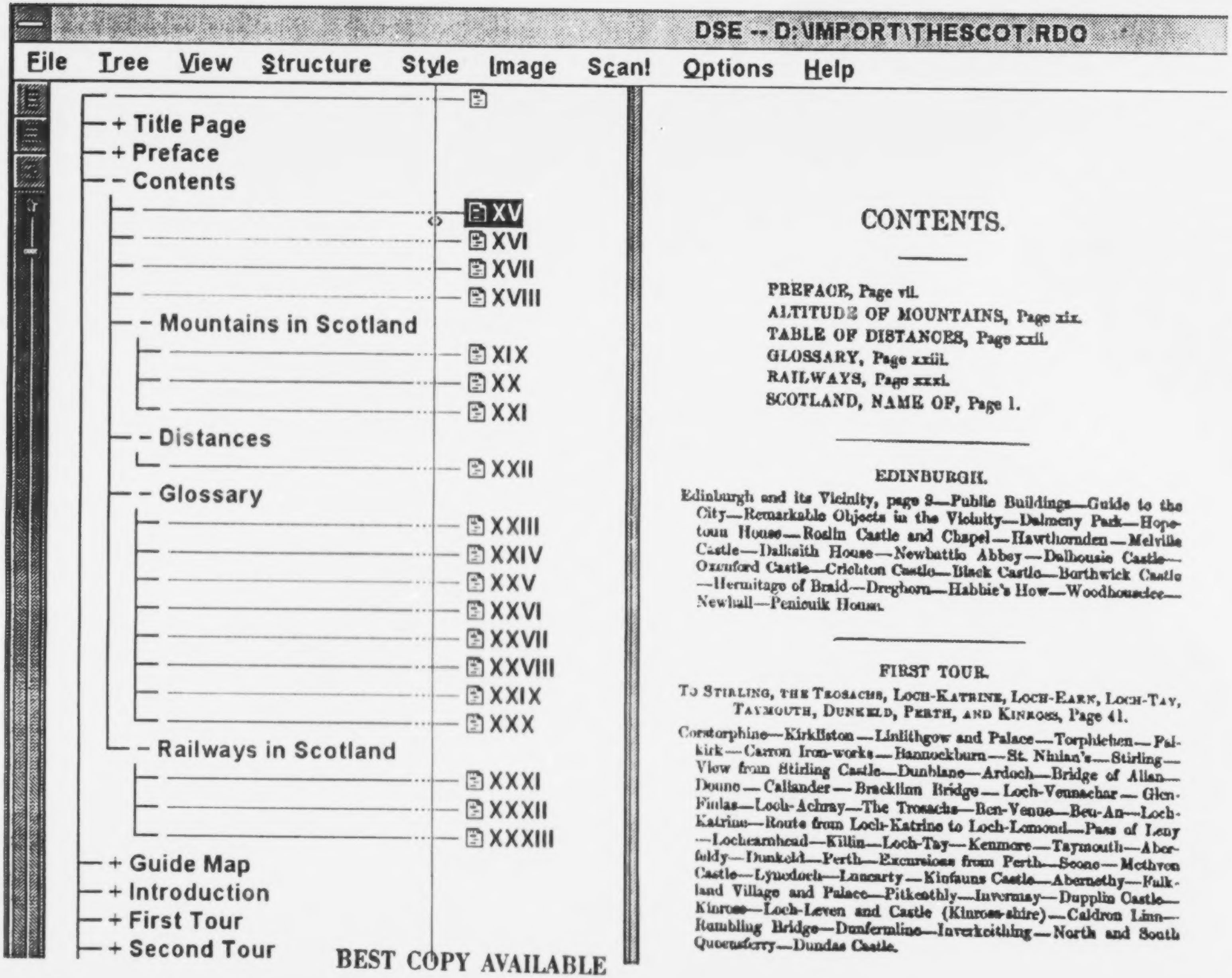

DSE -- D:\IMPORT\THESCOT.RDO
File
Tree
View
Structure
Style
Image
Scan!
Options
Help
+ Title Page
+ Preface
– Contents
XV
XVI
XVII
XVIII
– Mountains in Scotland
XIX
XX
XXI
– Distances
XXII
– Glossary
XXIII
XXIV
XXV
XXVI
XXVII
XXVIII
XXIX
XXX
– Railways in Scotland
XXXI
XXXII
XXXIII
+ Guide Map
+ Introduction
+ First Tour
+ Second Tour

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TABLE OF DISTANCES, Page xxii.
GLOSSARY, Page xxiii.
RAILWAYS, Page xxxi.
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EDINBURGH.

Edinburgh and its Vicinity, page 9—Public Buildings—Guide to the City—Remarkable Objects in the Vicinity—Dalmeny Park—Hopetoun House—Roslin Castle and Chapel—Hawthornden—Melville Castle—Dalkeith House—Newbattle Abbey—Dalhousie Castle—Oxenford Castle—Crichton Castle—Black Castle—Borthwick Castle—Hermitage of Braid—Dreghorn—Habbie's How—Woodhouselee—Newhall—Penicuik House.

FIRST TOUR.

To Stirling, the Trosachs, Loch-Katrine, Loch-Earn, Loch-Tay, Taymouth, Dunkeld, Perth, and Kinross, Page 41.

Corstorphine—Kirkliston—Linlithgow and Palace—Torphichen—Falkirk—Carron Iron-works—Bannockburn—St. Ninian's—Stirling—View from Stirling Castle—Dunblane—Ardoch—Bridge of Allan—Doune—Callander—Bracklinn Bridge—Loch-Vennachar—Glen-Finlas—Loch-Achray—The Trosachs—Ben-Venue—Ben-An—Loch-Katrine—Route from Loch-Katrine to Loch-Lomond—Pass of Leny—Lochearnhead—Killin—Loch-Tay—Kenmore—Taymouth—Aberfeldy—Dunkeld—Perth—Excursions from Perth—Scone—Methven Castle—Lynedoch—Luncarty—Kinfauns Castle—Abernethy—Falkland Village and Palace—Pitkeathly—Invermay—Dupplin Castle—Kinross—Loch-Leven and Castle (Kinross-shire)—Caldron Linn—Rumbling Bridge—Dunfermline—Inverkeithing—North and South Queensferry—Dundas Castle.

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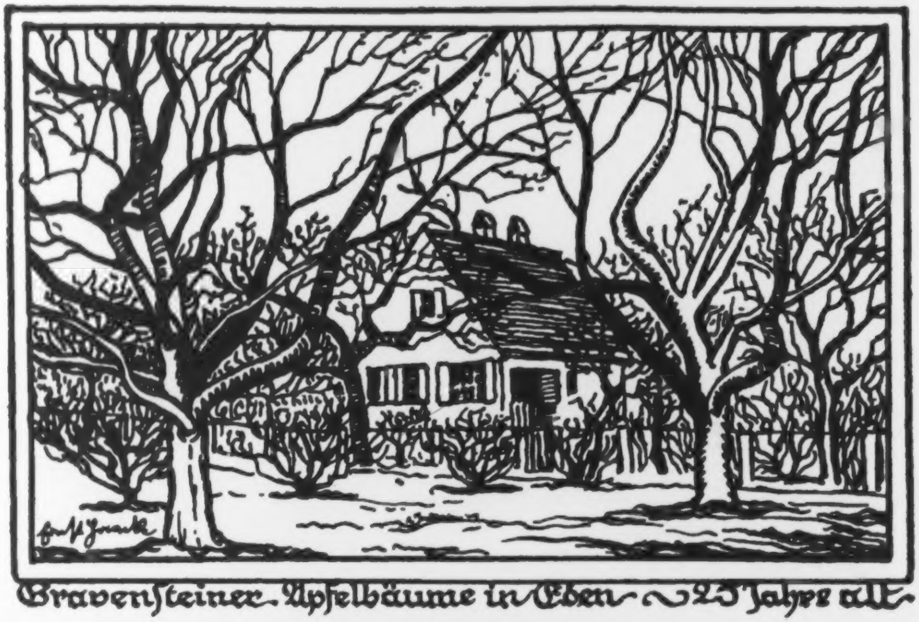
Yale

die Genoſſenſchaft nun auch in der Waſſerbeſchaffung vor neue Fragen, da das alte Rohrnetz nur für das alte Land berechnet iſt und das neue Land nicht ohne großen Druckverluſt angeſchloſſen werden kann.

Große Aufwendungen erforderte auch das Wegenetz. Die Hauptverkehrswege wurden durch die Anfuhr von Dünger für die Heimſtätten und von Bauſtoffen für die nach und nach entſtehenden Häuſer ſtark in Anſpruch genommen. Zum Befeſtigen der Wege half man ſich in den erſten Jahren mit Bauſchutt, was aber immer nur kurze Zeit vorhielt. Im zweiten Jahrzehnt wurde dann mittels Eiſenſchlacke, die von einer Oranienburger Fabrik leicht zu haben war, ein feſter Fahrdamm geſchaffen, der ſich nach Ueberſchüttung mit Kohlenſchlacke oder Kachelſchutt als dauerhaft und brauchbar erwieſen hat. Fußwege nach ſtädtiſcher Art und mit Spaltſteinen gepflaſterte Straßen waren einesteils zu koſtſpielig und andernteils bei der weitläufigen Bebauung und dem entſprechend geringen Verkehr auch nicht notwendig. Iſt es doch möglich, die wenig befahrenen Seitenwege auch im Sommer als grüne Raſenflächen zu halten, die dann nicht nur für die Ziegen, ſondern auch für die Augen von Menſchen mit ein wenig Sinn für einfache Naturſchönheit eine grüne Weide bilden.

Bei der Gründung der Siedlung war in der Umgebung Oranienburgs noch keine größere Erwerbsobſtanlage vorhanden. Erſt in ſpäteren Jahren entſtanden ſolche in der Gemarkung, die zum Teil nach Edener Vorbild angelegt wurden.



Gravenſteiner-Apfelbäume in Eden ~ 25 Jahre alt.

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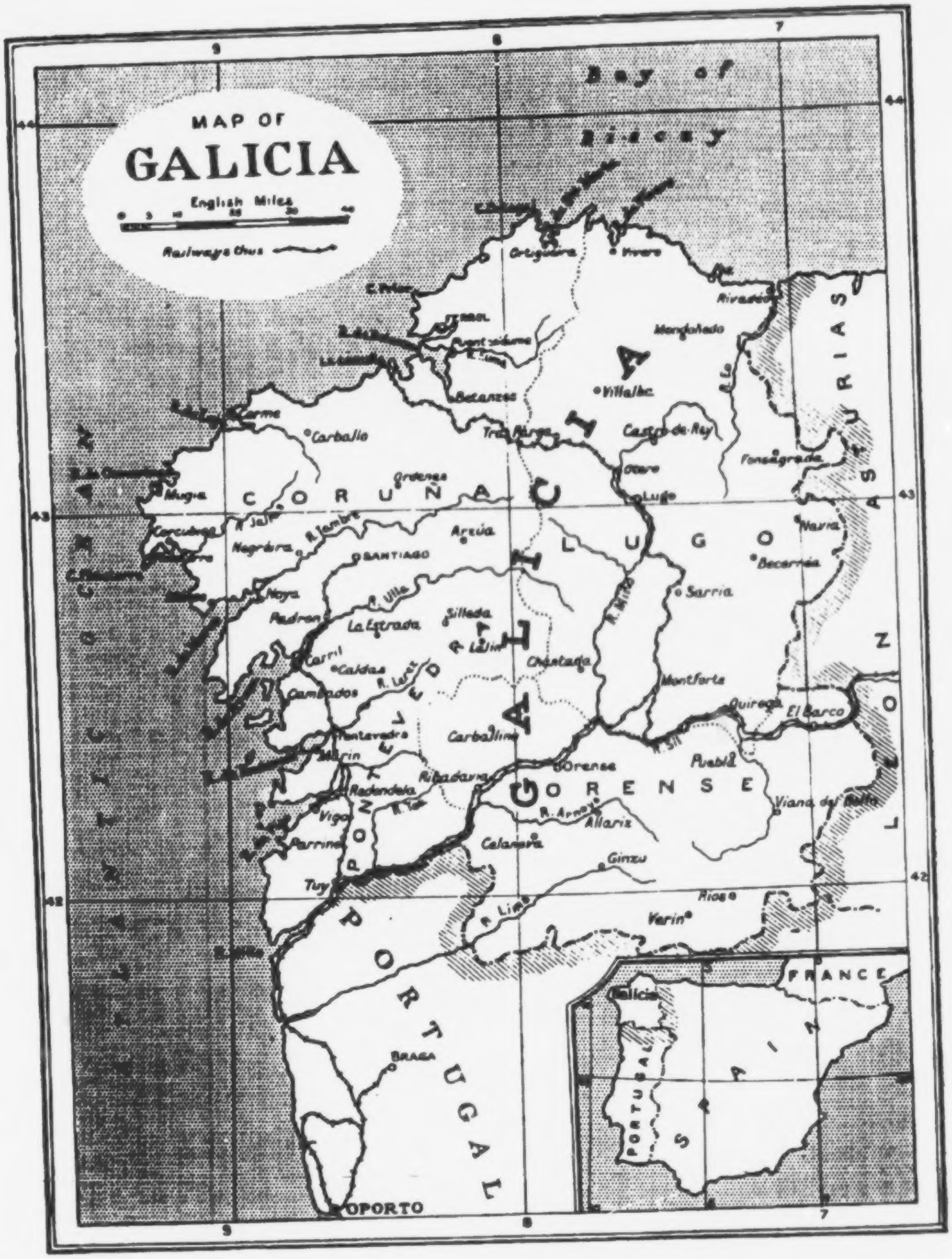
MAP OF
GALICIA
English Miles
Railways thus
Bay of Biscay
ATLANTIC OCEAN
GALICIA
CORUÑA
LUGO
ORENSE
PONTEVEDRA
ASTURIAS
LEON
PORTUGAL
Ortigueira
Vivero
Ribadeo
Mondoñedo
Ferrol
Puentedeume
Betanzos
Villalba
Carballo
Castro de Rey
Fonsagrada
Otero
Lugo
Ordenes
Mugia
Corcubion
Negreira
Santiago
Arzúa
Navia
Becerrea
Noya
Padron
La Estrada
Silleda
Lalin
Sarria
Carril
Caldas
Cambados
Chantada
Monforte
Quiroga
El Barco
Pontevedra
Marin
Carballino
Orense
Puebla
Redondela
Ribadavia
Vigo
Allariz
Viana del Bollo
Porriño
Celanova
Ginzo
Tuy
Riosa
Verin
R. Miño
R. Sil
R. Ulla
R. Lima
Braga
Oporto
FRANCE
SPAIN
PORTUGAL
Galicia

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SPEC

SYSTEMS AND PROCEDURES EXCHANGE CENTER

BIBLIOGRAPHIC CONTROL

ASSOCIATION OF RESEARCH LIBRARIES

OFFICE OF MANAGEMENT SERVICES

British Columbia

| Restart | | Mail | | Setup | | Feedback | | Logout | | Pserver |

```
UBC-358
+ 000 |STA n |TYP b |LEV c |ENC 1 |DES a |LINK -
+ 005 19950930131900.0
+ 008 |ADD 950930 |DTY i |DATE1       |DATE2       |COU bcc |ILL
      |AUD    |FORM    |GOV    |FEST    |IND    |MAIN    |LANG eng |MOD
      |SOUR    |FILL
+ 035 --|a1.1/930
+ 100 --|aUBC
+ 245 --|aUniversity crest
+ 260 --|cn.d.
+ 300 --|a19 x 24 cm.
+ 650 --|aCrest
+ 755 --|aco
+ 989 --|adba:3/photos/ubc/358.tif
+ 990 --|ap
+ 990 --|asn
+ 990 --|as
```

British Columbia

| Restart | | Mail | | Setup | | Feedback | | Logout | | Pserver |

1 items in set 4008 for 'Word=se=ubc-358'

```
PROVENANCE:      UBC
                 co
TITLE:           University crest
DATE:            n.d.
PHYSICAL DESC:   19 x 24 cm.
RECORD NUMBERS:  1.1/930(Print/Small negative/Slide)
SUBJECTS:        Crest
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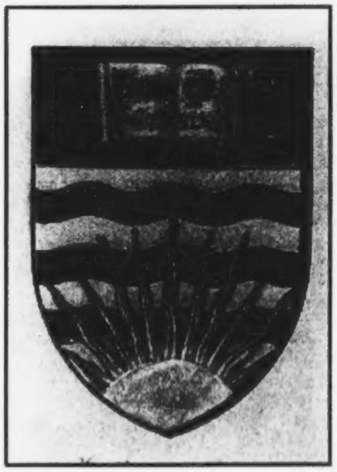

Full size image
Raw image
Request form

Other display forms are: Long (showing internal structure)

Save this item in file:

Update this item.

Make a copy of this item.

Cornell

```
Search Request: A=ADLER  AUG                          Cornell Library Catalog
BOOK - Record 1 of 3 Entries Found                                  Long View
----------------------------------------------------------------------- LX09
        TITLE:  Theorie der geometrischen Konstruktionen, von August Adler.
                  Mit 177 Figuren.

       AUTHOR:  Adler, August, b. 1863.

    PUBLISHED:  Leipzig, G. J. Göschen, 1906.

     SUBJECTS:  Geometrical drawing.
                Geometry, Plane.

  DESCRIPTION:  viii, 301 p. diagrs. 20 cm.

       SERIES:  Sammlung Schubert ; 52.

        NOTES:  Series title also at head of t.-p.
------------------------------------------------ + Page 1 of 2 -------------
STArt over          BRIef view                          <F8>  FORward page
HELp                INDex                               <F6>  NEXt record
OTHer options

NEXT COMMAND:
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```
Search Request: A=ADLER  AUG                            Cornell Library Catalog
BOOK - Record 1 of 3 Entries Found                                    Long View
----------------------------------------------------------------------- LX09
>       TITLE: Theorie der geometrischen Konstruktionen

        NOTES:  Available on demand as hard copy or computer file from Cornell
                  University Library.
-----------------------------------------------------------------------------
    LOCATION:             CALL NUMBER:                  STATUS:
 Mathematics Library    QA497 .A23 1906a          Charged, Due: 02/11/96
   (White Hall)




------------------------------------------------ + Page 2 of 2 -------------
STArt over          BRIef view                      <F7>  BACk page
HELp                INDex                           <F6>  NEXt record
OTHer options

NEXT COMMAND:
□□,                 1 NOTIS     132.236.240.20                          24/16
```

```
Search Request: A=ADLER  AUG                          Cornell Library Catalog
COMPUTER FILE - Record 2 of 3 Entries Found                         Long View
----------------------------------------------------------------------- LX09
        TITLE:  Theorie der geometrischen Konstruktionen

       AUTHOR:  Adler, August, b. 1863.
                von August Adler. Mit 177 Figuren.

     SUBJECTS:  Geometrical drawing.
                Geometry, Plane.

    TECHNICAL:  Files for the images of individual pages are encoded in
                  Aldus/Microsoft TIFF Version 5.0 using facsimile-compatible
                  CCITT Group 4 compression.

  DESCRIPTION:  viii, 301 p. diagrs. 20 cm.

        NOTES:  Series title also at head of t.-p.
----------------------------------------------- + Page 1 of 2 -------------
STArt over         BRIef view                               <F8>  FORward page
HELp               INDex                                    <F6>  NEXt record
OTHer options                                               <F5>  PREvious record

NEXT COMMAND:
______________________________________________________________________________
□□,                 1 NOTIS      132.236.240.20                           24/16
```

```
Search Request: A=ADLER  AUG                        Cornell Library Catalog
COMPUTER FILE - Record 2 of 3 Entries Found                       Long View
------------------------------------------------------------------------ LX09
>       TITLE: Theorie der geometrischen Konstruktionen

        NOTES: Computer file. Ithaca, NY : Cornell University Library, 1993.
                 319 image files.
               Digital master, c.1: 0207010567B3AF819F84420000000100000531

    PUBLISHED: Leipzig, G. J. Göschen, 1906.

       SERIES: Sammlung Schubert ; 52.
               Sammlung Schubert, 52
-----------------------------------------------------------------------------
    LOCATION:              CALL NUMBER:                    STATUS:
 Optical Disk            No call number available   Circ. info not available


------------------------------------------------ + Page 2 of 2 -------------
STArt over         BRIef view                            <F7>  BACk page
HELp               INDex                                 <F6>  NEXt record
OTHer options                                            <F5>  PREvious record

NEXT COMMAND:
□□,                1 NOTIS      132.236.240.20                          24/16
```

Cornell

```
Search Request: A=BARROW ISAAC                      Cornell Library Catalog
BOOK - Record 11 of 18 Entries Found                              Long View
------------------------------------------------------------------------ LX09
        TITLE:  The geometrical lectures of Isaac Barrow, translated, with
                  notes and proofs, and a discussion on the advance made
                  therein on the work of his predecessors in the infinitesimal
                  calculus, by J. M. Child.

       AUTHOR:  Barrow, Isaac, 1630-1677.

 OTHER TITLES:  Lectiones geometrica. English

    PUBLISHED:  Chicago, London, The Open court publishing company, 1916.

     SUBJECTS:  Geometry--Early works to 1800

  DESCRIPTION:  xiv, 218 p. front. (port.) diagrs. 19 cm.

-----------------------------------------------  + Page 1 of 2  -------------
STArt over         BRIef view                          <F8>  FORward page
HELp               INDex                               <F6>  NEXt record
OTHer options                                          <F5>  PREvious record

NEXT COMMAND:
□□,               1 NOTIS     132.236.240.20                             24/16
```

Cornell

```
Search Request: A=BARROW ISAAC                        Cornell Library Catalog
BOOK - Record 11 of 18 Entries Found                                Long View
------------------------------------------------------------------------ LX09
>       TITLE: The geometrical lectures of Isaac Barrow

       SERIES:  Open court series of classics of science and philosophy, no.
                  3.

        NOTES:  Translation of: Lectiones geometrica.
                Printed in Great Britain.
                Contains reproduction of original t.-p.: Lectiones geometricæ
                  ... Londini, 1670.
                Available on demand as hard copy or computer file from Cornell
                  University Library.
-----------------------------------------------------------------------------
    LOCATION:             CALL NUMBER:                    STATUS:
 Mathematics Library      QA33 .B27 1916a            Charged, Due: 03/05/96
   (White Hall)
---------------------------------------------- + Page 2 of 2 -------------
STArt over          BRIef view                      <F7>  BACk page
HELp                INDex                           <F6>  NEXt record
OTHer options                                       <F5>  PREvious record

NEXT COMMAND:
□□,                 1 NOTIS      132.236.240.20                        24/16
```

Cornell

```
Search Request: A=BARROW ISAAC                        Cornell Library Catalog
COMPUTER FILE - Record 12 of 18 Entries Found                        Long View
------------------------------------------------------------------------ LX09
         TITLE:  The geometrical lectures of Isaac Barrow

        AUTHOR:  Barrow, Isaac, 1630-1677.
                 translated, with notes and proofs, and a discussion on the
                   advance made therein on the work of his predecessors in the
                   infinitesimal calculus, by J. M. Child.

      SUBJECTS:  Geometry--Early works to 1800

     TECHNICAL:  Files for the images of individual pages are encoded in
                   Aldus/Microsoft TIFF Version 5.0 using facsimile-compatible
                   CCITT Group 4 compression.

   DESCRIPTION:  xiv, 218 p. front. (port.) diagrs. 19 cm.

------------------------------------------------ + Page 1 of 3 -------------
STArt over         BRIef view                          <F8>  FORward page
HELp               INDex                               <F6>  NEXt record
OTHer options                                          <F5>  PREvious record

NEXT COMMAND:
□□,                1 NOTIS     132.236.240.20                          24/16
```

Cornell

```
Search Request: A=BARROW ISAAC                          Cornell Library Catalog
COMPUTER FILE - Record 12 of 18 Entries Found                         Long View
------------------------------------------------------------------------- LX09
>       TITLE: The geometrical lectures of Isaac Barrow

CONTRIBUTORS:  Child, J. M. (James Mark).

OTHER TITLES:  Lectiones geometrica. English

       NOTES:  Translation of: Lectiones geometrica.
               Printed in Great Britain.
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                 ... Londini, 1670.
               Computer file. Ithaca, NY : Cornell University Library, 1992.
                 236 image files.
               Digital master, c.1: 1992190CUL0002

   PUBLISHED:  Chicago, London, The Open court publishing company, 1916.
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260:    ^c1972^
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530:    ^3Photo 6 - Continental Hotel, Koror.  (S-1874a.07).^
530:    ^3Photo 7 - Palau Bookmobile and Public Library, 1972.  Photo by J.
          Ngiraibuuch.  (S-1874a.10).^
530:    ^3Photo 8 - Palau landscape.  Photo by J. Ngiraibuuch.  (S-1874a.16).^
530:    ^3Photo 9 - Palauan school?  Photo by J. Ngiraibuuch.  (S-1874a.19).^
530:    ^3Photo 10 - Palau High School.  Photo by J. Ngiraibuuch.
          (S-1874a.20).^
530:    ^3Photo 11 - Palau store.  Photo by J. Ngiraibuuch.  (S-1874b.01).^
530:    ^3Photo 11 - Palau store.  Photo by J. Ngiraibuuch.  (S-1874b.01).^




530:    ^3Photo 12 - Palau High School.  Photo by J. Ngiraibuuch.
          (S-1874b.02).^
530:    ^3Photo 13 - Continental Hotel.  Photo by J. Ngiraibuuch.
          (S-1874b.03).^
530:    ^3Photo 14 - Palau boatyard.  Photo by J. Ngiraibuuch.  (S-1874b.05).^
530:    ^3Photo 15 - Palau Public Library.  Photo by J. Ngiraibuuch.
          (S-1874b.08).^
530:    ^3Photo 16 - Entrance, Palau High School.  Photo by J. Ngiraibuuch.
          (S-1874b.09).^
530:    ^3Photo 17 - WCTC Shopping Center, Koror.  Photo by J. Ngiraibuuch.
          (S-1874b.10).^
530:    ^3Photo 18 - View of Palau legislature (OEK) building.  Photo by J.
          Ngiraibuuch.  (S-1874b.11).^
530:    ^3Photo 19 - Boat construction.  Photo by J. Ngiraibuuch.
          (S-1874b.15).^
530:    ^3Photo 20 - Palau beach.  Photo by J. Ngiraibuuch.  (S-1874b.17).^
530:    ^3Photo 21 - MOC work.  (S-1874c.08).^
530:    ^3Photo 22 - Entrance to MOC.  (S-1874c.10).^
530:    ^3Photo 23 - Palau Civic Center, 1974.  (S-1874c.11).^
530:    ^3Photo 24 - Aerial view, Koror, 1972.  (S-1874c.12).^
530:    ^3Photo 25 - Children with leis, 1982.  (S-1874c.13).^
530:    ^3Photo 25 - Children with leis, 1982.  (S-1874c.13).^

530:    ^3Photo 26 - Women's dance group.  (S-1874c.15).^
530:    ^3Photo 27 - K-B Bridge, 1978.  (S-1874c.17).^
530:    ^3Photo 30 - Side of bai, 1978.  (S-1874d.02).^
530:    ^3Photo 31 - Airstrip, Palau, 1973.  (S-1874d.03).^
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530:    ^3Photo 33 - Palau sunset.  (S-1874d.07).^
530:    ^3Photo 34 - Van Camp fishing boat, 1972.  (S-1874d.08).^
530:    ^3Photo 35 - Koror from the air, 1973.  (S-1874d.10).^
530:    ^3Photo 36 - Fishing co-op.  (S-1874d.11).^
530:    ^3Photo 37 - Aerial view, rock islands.  (S-1874d.12).^
530:    ^3Photo 38 - Interior of bai.  (S-1874d.13).^
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530:    ^3Photo 2 - Scenic view:  rock islands, Palau:2   (S-1874a.02).^
530:    ^3Photo 3 - Palau scenery:1   (S-1874a.03).^
530:    ^3Photo 4 - Palau scenery:2   (S-1874a.04).^
530:    ^3Photo 5 - Palau scenery:3   (S-1874a.06).^
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651:   0^aMicronesia^xArchival resources.^
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COLLECTION-LEVEL MARC BIBLIOGRAPHIC RECORD: Food Irradiation

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Entered:     19920224    Replaced:    19950518       Used:     19950524
Type:     a      Bib lvl: s      Source:   d       Lang:      eng
Repr:            Enc lvl:        Govt pub: f       Ctry:      mdu
Phys med:        Mod rec:        Conf pub: 0       Cont:      ^^^^
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  2  040      AGL $c AGL $d FUG $d AGL $d NSD
  3  012      $i 9409 $l 1
  4  022 0    1078-5957
  5  042      lcd $a nsdp
  6  050 14   TP371.8 $b .F66
  7  070 0    aTP371.8.F66
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 14  222  0   Food irradiation $b (Beltsville, Md.)
 15  245 00   Food irradiation $h [computer file] / $c National Agricultural
Library, National Agricultural Text Digitizing Program.
 16  260      [Beltsville, MD] : $b The Program, $c 1993-
 17  265      National Agricultural Library, National Agricultural Text
Digitizing Program, USDA, 10301 Baltimore, Blvd., Beltsville, MD 20705-2351
 18  300      computer laser optical disks; $c 4 3/4 in. + $e documentation
 19  310      Irregular
 20  362 0    1-
 21  500      System requirements: IBM compatible PC (80386 or better with 4MB
free); CD-ROM with MS-DOS extentions 2.0 or higher; Mouse; 2MB memory with
470KB low RAM available; MS-DOS 3.3 or higher; Microsoft windows 3.1.
 22  500      Vol. for 1991 contains Textware Plus software for retrieval;
vols. for 1993-   contain Windows Personal Librarian software for retrieval.
 23  500      Title from disk label.
 24  515      Preceded by unnumbered prototype issue published in 1991; issue
1, published in Aug. 1993 called also revised ed.
 25  550      Prototype disk published by National Agricultural Text
Digitizing Project.
 26  650  0   Radiation preservation of food $x Databases.
 27  650  0   Irradiated foods $x Databases.
 28  710 2    National Agricultural Text Digitizing Project (U.S.)
 29  710 2    National Agricultural Text Digitizing Program (U.S.)
 30  850      DNAL $a FU
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National Agricultural Library Cataloging in Publication

Agronomy journal [computer file]. -- Vols. 1-16 (1907-1924)- . --
[Beltsville, Md.] : National Agricultural Library, National Agricultural
Text Digitizing Program ; [Madison, Wis.] : American Society of Agronomy,
[1992-
computer laser optical disks ; 4 3/4 in.
System requirements: IBM PC (80386 or higher) or compatible; 2MB RAM (including 512KB low RAM); 4MB hard disk; DOS 3.3 or higher; Microsoft Windows 3.0 or higher; mouse or other pointing device; CD-ROM player; MS-DOS CD-ROM Extensions 2.0 or later.
Irregular
Title from disk label.
CD-ROM ed. of: Proceedings of the American Society of Agronomy; Journal of the American Society of Agronomy, and: Agronomy journal.
ISSN 1072-9623

1. Agronomy -- Databases -- Periodicals. I. National Agricultural Text Digitizing Project (U.S.). II. American Society of Agronomy.

NAL call no.: SB1.A37

AMICUS Search: Item Display

Database : National Library Collections
Full Display - AMICUS Number 14556308

AMICUS No. 14556308
Serial

COPIES: Serials Stks - accessioned Available on NLC Gopher and WWW servers / Disponible sur les serveurs Gopher et WWW de la BNC - NO ILL

NAME(S): University of Manitoba. Dept. of Educational Administration and Foundations

TITLE(S): *Canadian journal of educational administration and policy [computer file]

PUBLISHER: Canadian Journal of Educational Administration and Policy, University of Manitoba, Dept. of Educational Administration and Foundations, Winnipeg, MB R3T 2N2; email: cjeap@bldgeduc.Lan1.umanitoba.ca
Winnipeg : University of Manitoba, Dept. of Educational Administration and Foundations 1995-

NOTES: Title from caption.
Mode of access: Internet email, to subscribe send email to listproc@cc.umanitoba.ca with message: subscribe canjedadpol-L [your name]; University of Manitoba gopher; NLC gopher and WWW servers.

NUMBERS: ISSN: XXXX-XXXX*
Dynix: 1959061X
http://www.nlc-bnc.ca/eppp-archive/canjedad/
gopher://gopher.nlc-bnc.ca/National Library of Canada Gopher Server - English version/Canadian electronic publications/NLC Electronic Publications Pilot Project - by title
gopher://gopher.cc.umanitoba.ca/Faculties and departments/Faculty of Education/Electronic Journals in Education

CLASSIFICATION: LC Class no.: LB14.7

CAT. SOURCE: CaOONL eng CaOONL
CAT. LEVEL: Verified

LOCATIONS: OONL

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Database : National Library Collections
MARC Display - AMICUS Number 14556308
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Computer file          Serial               New record
Full ISBD (AACR2)      Partial record       Verified

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              Policy, University of Manitoba, Dept. of Educational
              Administration and Foundations, Winnipeg, MB R3T 2N2;
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040          °aCaOONL °beng °cCaOONL
055.01 a     °aLB14.7
099.7        °a1959061X
500          °aTitle from caption.
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710.2   a    °aUniversity of Manitoba. °bDept. of Educational
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SPEC

SYSTEMS AND PROCEDURES EXCHANGE CENTER

PROJECT PUBLICITY

ASSOCIATION OF RESEARCH LIBRARIES OFFICE OF MANAGEMENT SERVICES

19th-century documents to be digitized at Cornell and Michigan

By William Steele

Much of America's 19th-century recorded history is literally crumbling to dust because it was written on short-lived acidic paper. But some of it could be saved by a new project to convert important historical documents to digital form.

Librarians, computer specialists and faculty at Cornell and the University of Michigan have launched the "Making of America" project to convert many of these documents to computer files, not only to preserve them but also to make them widely available to scholars and students via the Internet.

Documents such as public speeches, periodicals, pamphlets and personal letters and memoirs will be scanned and saved as image files which then can be viewed on computer screens, printed on paper or transmitted over computer networks.

For the pilot phase, funded by a $750,000 grant from the Andrew W. Mellon Foundation, 5,000 volumes will be scanned. This will be the first installment on a larger digital library that eventually will include 100,000 volumes to be selected and scanned by a growing number of research institutions.

"In selecting documents to start with, we are looking for the voice of the period from mid-19th century through the Civil War and Reconstruction, what was helping to shape popular conception and public opinion," said Anne Kenney, a co-director of the project at Cornell. "The time frame from 1850 to 1877 lends itself to a focus on the conflict over the Union and the transformations which grew out of the Civil War." Kenney is associate director of the Department of Preservation and Conservation of the Cornell University Library.

'We will compare the costs of the ways we make hardcopy materials available today with what will occur in the future as we migrate to digital.'

– Anne Kenney

The project focuses on the 19th and early 20th centuries because the paper used in that era is the most fragile.

"In the middle of the 19th century, paper manufacturing moved from rag-based paper to paper made from wood pulp," Kenney explained. "This paper had shorter fibers and contained acid which eventually caused it to disintegrate. As a result, items from the 1930s are in worse shape than items from the early 1800s." In the later 20th century, she added, there was a shift to alkaline papers, which survive better.

Until now, old documents have been preserved by microfilming and photocopying. "I think the great advantage of digital technology is the enhanced access," Kenney said. Beginning this spring, she said, documents that already have been scanned will be made available on the World Wide Web, a system that can transmit visual images to anyone anywhere in the world who has a computer and access to the Internet.

It also will be possible to use optical character recognition (OCR) technology to convert the imaged documents into computer text, which can be searched and analyzed by computers, Kenney said. Scholars and students could use this ability to locate the documents they need, then call up images of the actual documents.

Part of the early phase of the project will include evaluation, Kenney added. "We want to see if we can make a sufficient case for scholars to change the way they do things." Librarians also will study how making materials available in digital form affects the nature of scholarly research, communication, teaching and publication, and how they can best make these materials available to users.

Additional co-directors of the project are Steve Worona, Cornell assistant to the vice president for information technologies; Wendy Lougee, director of the Digital Library Program at the University of Michigan; and Kitty Bridges, director of information access programs at the University of Michigan.

Other institutions will be invited to participate in subsequent phases of the Making of America project.

Since its inception in 1969, the Andrew W. Mellon Foundation has contributed to preservation projects, libraries, museums, education, conservation and the environment, science and technology education, foreign educational institutions and population studies. In recent years it has helped research libraries develop the use of electronic technologies.

Earlier funding for the Making of America project came from the Charles E. Culpeper Foundation and the Commission on Preservation and Access.

Mellon Foundation saves the past, protects the future

Library grant to preserve 19th century history

Much of America's 19th century recorded history is crumbling to dust because it was written on short-lived acidic paper. A $750,000 grant from The Andrew W. Mellon Foundation is funding the Cornell University Library pilot phase of an ambitious project to save thousands of important historical documents. Periodicals, pamphlets, personal letters, memoirs, and public speeches will be scanned and saved as computer files. The documents will then be made widely available to students and scholars via the Internet. Called the "Making of America," this project is a joint effort by librarians, computer specialists, and faculty members at Cornell University and the University of Michigan.

Converting documents to computer files will preserve the words and pictures in a new form. Once the documents are scanned and saved as image files, they can be viewed on computer screens, printed on paper, or transmitted over computer networks. Teachers can easily access and reproduce these primary sources and distribute them for class use.

Anne Kenney, the associate director of the Department of Preservation and Conservation at the Cornell Library, is co-director of the project. "In selecting documents to start with," she said, "we are looking for the voice of the period from mid-19th century through the Civil War and Reconstruction, what was helping to shape popular conception and public opinion. The time frame from 1850 to 1877 lends itself to a focus on the conflict over the Union and the transformations that grew out of the Civil War."

The development of a database of primary source material in digital form for this historic period is particularly important because the paper used in the 19th and early 20th centuries is so fragile. In the mid-19th century, paper manufacturers switched from rag-based paper to paper made from wood pulp. Ms. Kenney explains, "This paper had shorter fibers and contained acid that eventually caused it to disintegrate. As a result, items from the 1930s are in worse shape than items from the early 1800s." By the mid-20th century, there was a switch to alkaline papers, which survive better.

Consulting materials on screen rather than in a library may cause unexpected changes in how information is distributed and how scholars work. Librarians will evaluate how new digital imaging technologies serve the needs of research libraries and the scholars, teachers, and students who use them. They will also evaluate the costs of digital versus printed forms and determine the best way to make the scanned material available to users.

Since its inception in 1969, The Andrew W. Mellon Foundation has contributed to preservation projects, libraries, museums, education, conservation and the environment, science and technology education, foreign educational institutions, and population studies. In recent years it has undertaken several projects helping research libraries develop the use of electronic technologies.

Earlier funding for the "Making of America" came from the Charles E. Culpepper Foundation and the Commission on Preservation and Access.

PHOTOGRAPHS BY CORNELL UNIVERSITY PHOTOGRAPHY

HARPER'S BAZAR
HARPER'S BAZAR
FOR OUR CHILDREN.

THE PAGES OF HISTORY WILL SOON BE THE COMPUTER FILES OF HISTORY, THANKS TO A MELLON GRANT SUPPORTING THE CORNELL LIBRARY'S EFFORTS TO DIGITIZE AND STORE CRUMBLING HISTORIC DOCUMENTS. THESE 1877 ISSUES OF HARPER'S BAZAR ARE SOME OF THE THOUSANDS OF RECORDS BEING SAVED

BEST COPY AVAILABLE

National Library of Canada

NATIONAL LIBRARY NEWS

March-April 1995, vol. 27, nos. 3-4

ISSN 0027-9633

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The National Library's Electronic Publications Pilot Project

by Nancy Brodie,
Information Resource Management

How do you acquire a document that exists only on an electronic network? How can you make sure that it will be the same document years from now? And how can you make it accessible without making it vulnerable to manipulation?

The explosion in electronic publishing and networked information is creating major challenges for the National Library and libraries across the country. New methods of acquiring, storing and making online publications available to library patrons must be developed quickly. To meet these challenges, the National Library of Canada has undertaken a pilot project that will provide guidelines and options on how to deal with electronic publications.

"As the federal cultural institution responsible for Canada's printed heritage, the National Library must find new ways of fulfilling its heritage mandate in the information age," says National Librarian Marianne Scott. "We have to make sure that library collections include all types of publications to prevent serious gaps in the Canadian heritage and the loss of our nation's research tools."

Several Canadian libraries have built collections, or links to collections, of networked electronic publications on the Internet; however, the National Library is focussing exclusively on Canadian electronic publications. For example, the University of Calgary library has selected electronic journal titles to store locally. The University of Saskatchewan library has made its electronic journals collection more accessible by providing a keyword search facility and a bibliography of articles and reports about electronic journals. Simon Fraser University has an ongoing research project to build an electronic library, which thus far includes a collection of research papers, preprints and technical reports. The University of Toronto's Faculty of Information Studies has initiated an electronic journal project and is investigating different approaches for enhanced access, including the use of the electronic standard Z39.50 and Standard Generalized Mark-up Language (SGML). Canadian libraries are looking to the National Library for leadership in cataloguing and preservation standards for electronic publications. Canadian libraries recognize the need to address electronic publication issues such as information integrity and security, copyright, and charging.

Objectives

The objectives of the Electronic Publications Pilot Project are:

1. To identify and understand the issues that libraries and the National Library in particular will encounter in handling online collections.

(continued on page 4...)

(...continued from page 1)

2. To foster the transfer of knowledge about, and familiarity with, online documents to a broader base of National Library staff involved in the operations of the Library (selection, acquisitions, cataloguing, collection management, transfer of online documents to preservation storage media, reference).
3. To help the National Library to determine longer-term policies on handling network documents, and to recommend organizational responsibilities within the National Library for handling these documents.
4. To gain experience so that the National Library can play a major role within the federal government in terms of management of government information.
5. To provide input to the National Library's resource requirements definition and planning documents.
6. To gain experience and expertise in some of the technologies and technology issues involving electronic publications and publishing, in particular, electronic publishing on the Internet.

To meet these objectives, it was agreed that the National Library would conduct a pilot project to acquire, store, preserve, catalogue and provide service for a small number of Canadian online electronic journals available on the Internet. The technical platform for the pilot project is the Library's current hardware, and either software already licensed by the Library, or "freeware" (software freely available in the public domain).

Bill Newman, Manager of Systems and Telecommunications Support in Information Technology Services, was appointed project leader and established a project plan in the summer of 1994. Staff from several areas of the National Library were assigned to work on the project team and received Internet familiarization training. The project got underway in September 1994.

Technical Services

Technical services procedures have been drafted and redrafted as staff members have become more familiar with electronic publications and the technical support structure evolves. Initially, staff envisioned passing electronic serial issues via e-mail from acquisitions to check-in to cataloguing. They soon realized that the issue could be stored electronically on receipt and be accessible simultaneously to staff involved in all steps of the technical services process and to the public.

Acquisition

To date, the following Canadian electronic journals are being used for the pilot project: *Axe: Revue électronique de la littérature québécoise et francophone; Cropduster; iMpulse: Music Journal; International Teletimes; The Spill; Government Information in Canada; The Reader; Weekly Checklist of Canadian Government Publications; National Library News;* and *Infocycle.* The publishers of these titles, which are disseminated without charge on the Internet, have agreed to participate in the project.

Acquisitions staff, who deal regularly with many small Canadian publishers, found that once they got in touch with the publishers of electronic journals, their discussions were not unlike those held with publishers of printed documents. But trying to establish telephone contact to explain the project, answer questions and hold general discussions was sometimes difficult, since many electronic publishers rely almost exclusively on e-mail.

Several acquisitions issues were identified early in the project. For example, the National Library is acquiring and storing the journal issues rather than storing only the addresses of other computers that store the journals. This enables the Library to maintain better control over the journals, particularly with regard to concerns such as preservation. Several titles were not archived anywhere, and one title had already ceased publication.

It is simple to subscribe and automatically receive journals distributed by e-mail. But journals disseminated via the World Wide Web often have various component parts and hypertext links to other publications, which makes them difficult to assemble, let alone acquire automatically.

Some journals are available in several versions, e.g., ASCII text and Hypertext Mark-Up Language (HTML). As well, they may also exist in different word-processed versions, such as MSWord or WordPerfect. Should all versions be acquired? Some documents are distributed in a compressed format. Are significant data lost due to compression? Must software to deal with certain kinds of compressed files also be collected? When journals are received via e-mail, should e-mail headers be retained? Are they part of the "original" document?

Cataloguing

Draft descriptive cataloguing guidelines had been developed before the start of the pilot project. These are based on the *Anglo-American Cataloguing Rules*, OCLC's *Guidelines for Bibliographic Description of Internet Resources* (1993) and MARBI (machine-readable bibliographic information) discussion papers. Following these guidelines, bibliographic records for titles being used in the pilot project are in preparation and will appear in the Library's DOBIS and AMICUS databases and on the National Library's in-house Dynix Online Public Access Catalogue (OPAC).

File-naming conventions for storing journal issues on the computer are equally important for collection management and access. A subject arrangement for display of electronic publications on the Internet has been devised, and this will provide yet another level of access to the growing collection of electronic publications at the National Library.

Collection Management

The term "collection management" is taking on a new meaning. In the electronic environment it means managing computer files on disk, not managing physical collections of material on shelves. It is clear that traditional collection management staff will need to work in partnership with computer operations and telecommunications staff in Information Technology Services. Material is not lent but accessed electronically. However, not all National Library clients will have electronic access. Conversion to print and interlibrary loan may be required — another issue that must also be considered.

The National Library realizes that online storage with regular back-ups is not sufficient or practical for long-term preservation and access for electronic journals. Considerable thought is being given to long-term storage and preservation requirements and available technologies.

An overview of storage and preservation issues has been completed. Collection management staff must collaborate with information technology, technical services and public services staff to further address these issues.

Access

Early in the project, it was decided to use the World Wide Web as the primary means of access to the electronic publications included in the pilot project. Some of the journals were only available on the Web and could not be adequately viewed other than via a Web server and client. The Web appears to be the preferred means for more formal electronic publishing. The National Library has established a Web site for the Electronic Publications Pilot Project at URL: http://www.nlc-bnc.ca/eppp/e3p.htm. However, the National Library recognizes that Internet users have various means of access and that the Canadian public has access to a growing number of freenets. Gopher (gopher.nlc-bnc.ca) and, if possible, file transfer protocol (FTP) access to the electronic publications will also be provided.

All Canadian libraries and individuals with access to the Internet or a Freenet can access the publications included in the pilot project. As part of the pilot project, procedures are being developed to serve libraries and remote users who do not have Internet or Freenet access. Clients using the National Library services on-site in Ottawa will have access via an Internet workstation in the Reference Room.

User Feedback

User feedback is an important part of this pilot project. Input from Canadian libraries and their users on the issues associated with electronic publications would be very welcome.

Report

A report on the project will be prepared in the spring of 1995. This report will discuss issues and assess results.

Visit the National Library's Electronic Publications Pilot Project at:

URL: http://www.nlc-bnc.ca/eppp/e3p.htm

URL: gopher://gopher.nlc-bnc.ca

For further information on the Electronic Publications Pilot Project, contact:

Nancy Brodie
National Library of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N4
Telephone: (613) 947-5887
Fax: (613) 996-7941
TTY: (613) 992-6969
Internet: nancy.brodie@nlc-bnc.ca

Notable Acquisitions

The National Library has recently received three interesting gift acquisitions for its Canadiana collection:

- *Holy Bible Containing the Old Testament, the Apocrypha and the New Testament.*

This copy belonged to William III, King of Great Britain (1689-1702), and was presented to Lieutenant-Colonel Mackenzie Bowell, Grand Master of the Orangemen of British America, on September 6, 1873. Bowell was Prime Minister of Canada from 1894 to 1896.

- Frères du Sacré-Coeur. *Livre de lecture courante cours moyen.* Montréal: Frères du Sacré-Coeur, 1897.
- Magnan, Jean-Charles. *Les cercles d'élèves-jardiniers dans les écoles.* Saint-Casimir: Bureau d'enseignement agricole, 1915.

A brochure on gifts to the National Library is available free from:

Marketing and Publishing
National Library of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N4
Telephone: (613) 995-7969
Fax: (613) 991-9871
TTY: (613) 992-6969
Internet: publications@nlc-bnc.ca

For further information about gifts to the National Library, contact:

Monique Dupré
Head, Gifts and Exchanges Section
National Library of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N4
Telephone: (819) 994-6855
Fax: (819) 953-8508
TTY: (613) 992-6969
Internet: gifts@nlc-bnc.ca

fiche copies of theses through the National Library's interlibrary loan service. Copies may be purchased from our two agents, UMI (international sales) and Micromedia (Canadian sales).

The success of this program is largely due to the excellent collaboration between the National Library and participating universities. The universities, in addition to sharing production costs, ensure that the theses comply with technical specifications and legal requirements (copyright) for filming. In return, the universities receive a microfiche copy of each thesis they submit. The Library is responsible for coordinating and promoting the program, for preserving the microfiche collection, and for maintaining reproduction standards. The Canadian Theses Service also has partnerships with private-sector agents, which do the microfilming and provide sales service. These partnerships make it possible for microfilming to be done in the shortest possible time, and facilitate the distribution of theses in new formats and the development of new products.

Given the development of new types of electronic formats and the explosion in new communications media, the program's main challenge in the coming years will be to ensure that theses can be disseminated in new formats. The National Library will continue to be responsive to the needs of its partners in areas ranging from conservation to the electronic transfer of theses, in keeping with our long tradition of cooperation and resource sharing.

Resource Sharing and Information Technology: Updates

The National Library of Canada is recognized as a leader in the creation and development of information technology that helps libraries to help their clients. Following are brief updates on recent technological advances that will assist Canadian libraries to share their resources, including collections, information and expertise.

Access AMICUS

Access AMICUS is the replacement for the DOBIS Search Service, which is being retired, along with the DOBIS system, after many useful years. Access AMICUS, which is being implemented during the summer of 1995, is a national fee-based service that offers users many possibilities. For example:

- search more than nine million records in the Library's automated database, including the union catalogue, source records, etc., for local operations such as cataloguing, reference, interlibrary loan and acquisitions;
- send ILL requests to the National Library;
- order documents from the Canada Institute for Scientific and Technical Information (CISTI);
- conduct Boolean searches;
- adjust the scope of your searches (e.g., the entire database, only the union catalogue, only source files);
- sort by author, title, date, format;
- change to Brief, Full or MARC record display;
- save search queries.

Access AMICUS accepts a variety of hardware (e.g., Digital VT100, VT220, V320); and users can gain access via Datapac, iNet, the Internet, a dedicated line or GNET, the Government of Canada's network.

Currently, more than 670 institutions across Canada are subscribers to Access AMICUS, and they range from small libraries to large research bodies. Access AMICUS support services include the Client Information Centre, the Network Control Centre, systems operation and maintenance, user training and documentation, and billing.

Information:
Client Information Centre
National Library of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N4
Telephone: (819) 997-7227
Fax: (819) 994-6835
TTY: (613) 992-6969
ENVOY 100: its.cic
Internet: cic@nlc-bnc.ca

Information Retrieval

The Library is planning the Z39.50 AMICUS Project (ZAP) which will test the use of AMICUS with the NISO Z39.50 (1992) Information Retrieval Standard. A select number of Canadian libraries will participate in the project before Z39.50 access is made available to all AMICUS subscribers. The project will examine issues relating to the use of the standard, including implications for services such as ILL and reference, billing and user support requirements, and the identification of additional AMICUS Z39.50 requirements.

In conjunction with Software Kinetics Ltd., the National Library developed for public distribution toolkit software that helps implementors to overcome some of the costs of implementation and fosters the Canadian adoption and use of the Z39.50 standard. The software also conforms to the international Search and Retrieve (SR) protocol standard. The use of Z39.50-based software makes it easier to search the multitude of commercial databases and online public access catalogues available to libraries through the Internet and other networks. The Library's project manager received an award from the federal government in recognition of the software's usefulness and the team's work.

The National Library continues to participate in the Z39.50 Implementors' Group and the ISO working group responsible for SR. It also monitors North American as well as European Z39.50 and SR implementation activities.

Information:
Fay Turner
Information Technology Services
National Library of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N4
Telephone: (819) 994-6830
Fax: (819) 994-6835
TTY: (613) 992-6969
Internet: fay.turner@nlc-bnc.ca

Interlibrary Loan (ILL) Protocol Implementation

The first U.S. implementation of the ILL protocol is being produced by the North Carolina Triangle Research Libraries Network (TRLN). TRLN is developing a comprehensive automated document delivery system for its member libraries. The National Library worked closely with TRLN to provide ILL protocol technical support. Within Canada, ISM Library Information Systems has released version 4.01 of *AVISO* which includes full support for the ILL protocol. ISM is also collaborating with the Research Libraries Group (RLG) to produce a version of *AVISO* that will incorporate a number of additional requirements for the U.S. market.

The International Organization for Standardization (ISO) has approved an amendment to the ILL protocol standard put forward by the National Library. The amendment allows for supplying information that pertains to the electronic delivery of requested items.

Information:
Fay Turner
Information Technology Services
National Library of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N4
Telephone: (819) 994-6963
Fax: (819) 994-6835
TTY: (613) 992-6969
Internet: fay.turner@nlc-bnc.ca

World Wide Web (WWW)

As noted in other parts of this issue, the National Library is developing a World Wide Web (WWW) service. The main goal of this service is to create and integrate into mainstream services a sophisticated information system capable of delivering hypertext multimedia documents to the Internet community.

The Library's World Wide Web service will include National Library publications, descriptions of the Library's collections and services, cultural events and exhibitions, and pointers to other Canadian Internet information resources. Specific projects underway include: a National Library Homepage, Read Up On It 1994, the National Library's Canadian Literature Research Service reading lists, a "Virtual Tour" of the National Library, images of selected items displayed in the Canadian science fiction and fantasy exhibition, *National Library News*, the *Publications Catalogue*, and the Library's promotional booklet on *Canadiana, the National Bibliography*. These publications and products are scheduled for release on the Web in June 1995.

Information:
Gary Cleveland
Information Technology Services
National Library of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N4
Telephone: (819) 997-7002
Fax: (819) 994-6835
TTY: (613) 992-6969
Internet: gary.cleveland@nlc-bnc.ca

The Electronic Publications Pilot Project

During the summer of 1994 the National Library began a pilot project to acquire, store, preserve, catalogue and provide service for a small number of Canadian online electronic journals available on the Internet (see "The National Library's Electronic Publications Pilot Project", *National Library News*, vol. 27, nos. 3-4, March-April 1994, pp. 1, 4-5.). This project was established as the result of recommendations for a short-term strategy in an internal 1993 report, "Electronic Publications and the National Library of Canada". Three of the project objectives are:

- to identify and understand the issues that libraries and the National Library in particular will encounter in handling online collections;
- to foster the transfer of knowledge about, and familiarity with, online documents to a broader base of National Library staff involved in the operations of the Library;
- to gain experience and expertise in some of the technologies and technology issues involved with electronic publications and publishing, in particular, electronic publishing on the Internet.

The 1993 study also recognized the need for the National Library to explore longer-term solutions with the Canadian library community. It is generally perceived that the library community must work towards the creation of a "virtual library" and the infrastructure necessary to support networked information delivery. The study made these recommendations:

- focus more attention on the problem of retrospective availability of electronic information, and link discussions of "just in time" document delivery to the issue of archiving these materials for long-term accessibility;
- develop partnerships to work on policy and technological issues;
- define and rationalize areas of responsibility for electronic information resources, and develop "collecting partnerships" for the preservation and distribution of electronic information in a networked environment;

- participate in developing and implementing standards for information interchange;
- start small: work with defined areas of material to establish and test models for larger applications.

The Electronic Publications Pilot Project is using the experience gained through a practical project to further refine longer-term strategies for handling network documents and providing input to the National Library's definition of and planning for resource requirements.

Issues relating to long-term preservation and storage of electronic serials have been explored. Since it is easy to copy electronic documents without damage to the original (unlike the print equivalent), electronic preservation and access should become more closely entwined. Should responsibility for storing or "archiving" Canadian electronic publications be centralized or decentralized? How much redundancy is required to ensure both current access to material in high demand and long-term preservation and access? These and other questions are among the many that should be developed and discussed among Canadian libraries.

The electronic environment opens new possibilities for resource sharing among Canadian libraries. The National Library looks forward to working cooperatively with other libraries and information providers in networked information delivery for our clients.

Information:
Nancy Brodie
Information Resource Management
National Library of Canada
395 Wellington Street
Ottawa, Ontario
K1A 0N4
Telephone: (613) 947-5887
Fax: (613) 996-7941
TTY: (613) 992-6969
Internet: nancy.brodie@nlc-bnc.ca

Working with SchoolNet

by Doug Hodges,
National and International Programs

Do you remember those advertisements for fast-growing trees they used to run in magazines? They tantalized readers, urging us to buy with phrases like "Rocket Tree Grows 15 Feet in a Single Year!" Having a horticultural bent, I longed to get one of those trees and watch it reach for the sky. Well, I don't know if any trees have ever grown that fast, especially in the Canadian climate, but if SchoolNet were such a tree, it would have reached high earth orbit by now!

Every day, more and more people gain access to the Internet. With this access comes a host of new opportunities for exchanging ideas and news, finding information, sharing resources, participating in decision-making, and using and offering innovative services. The federal government of Canada, in cooperation with other governments, libraries, community groups, and the private sector, is working to help ensure that the educational, social, and economic benefits of the Information Highway will be available to all Canadians, whether they live in urban centres or in the geographically diverse rural areas of Canada. SchoolNet, a program funded federally by Industry Canada, is an important part of a national strategy to encourage access to, and use of, the Internet.

SchoolNet is a means of supporting all levels of education, whether in the formal context of the programs offered by schools, colleges, and universities, or in the more informal context of the services offered by public libraries. As of February 1995, SchoolNet had grown in one and one-half years to include more than 5 000 schools across the country, as well as many beyond Canada's borders. There are now over 1 000 000 accesses to SchoolNet annually, the result of a 65 percent compounded growth in accesses per month. A major purpose of SchoolNet is to ensure that by the end of 1998, all 16 000 Canadian schools, all Canadian public libraries and all Canadian rural communities will have access to the Internet. The National Library, the Canadian Library Association (CLA) and the Association pour l'avancement des sciences et des techniques de la documentation (ASTED) are all represented on the SchoolNet Advisory Board.

Via the SchoolNet gopher users can access services and resources such as library catalogues, databases, directories, discussion groups (for students and for teaching staff), educational software, reports, manuals, graphics, electronic newsfeeds, government program information, career information, and an "electronic innovators" program which allows teachers and students to obtain expert information and advice from 400 scientists and engineers from around the world. Both English and French content and services are available. The SchoolNet project also includes an initiative to link all of the schools and libraries on aboriginal reserves across the country. The National Library's gopher, and other Internet gophers and servers, are accessible through SchoolNet.

One of the new services that is being made available through SchoolNet is the "Gopher-Hotel", which allows schools to create and maintain their own gopher servers. Another new service enables participating institutions to get a "best price" for hardware or software. For example, SchoolNet has established an agreement with a well-known computer manufacturer so that participating schools can get the best North American price for the manufacturer's Internet servers. A World Wide Web site is also

FOR MORE INFORMATION

If you would like more information on the Penn State scanning project contact:

Sue Kellerman
Preservation Librarian
The Pennsylvania State University
University Libraries
E506 Pattee Library
University Park, PA 16802-1805
phone: (814) 865-1858
fax: (814) 863-7293
e-mail: lsk@psulias.psu.edu

For more information on Commission initiatives contact:

The Commission on
Preservation and Access
1400 16th Street, NW
Suite 740
Washington, D.C. 20036-2217
phone: (202) 939-3400
fax: (202) 939-3407

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The Commission on
Preservation
& Access

The production of this brochure was made possible from funding by the Commission on Preservation and Access and the University Libraries.

PENNSTATE

This publication is available in alternative media on request.

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Penn State
Libraries

Digital Preservation Project

A collaborative demonstration project supported by the Commission on Preservation and Access, Penn State and Xerox Corporation

Penn State

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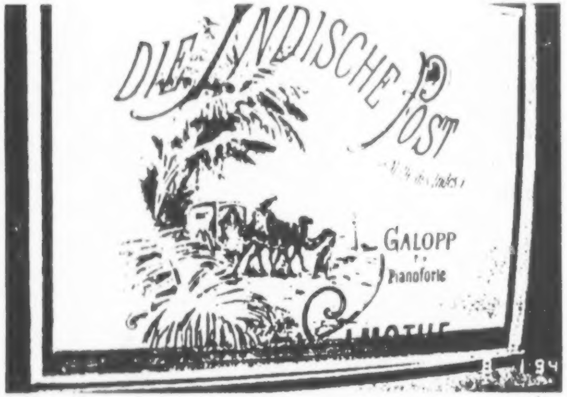
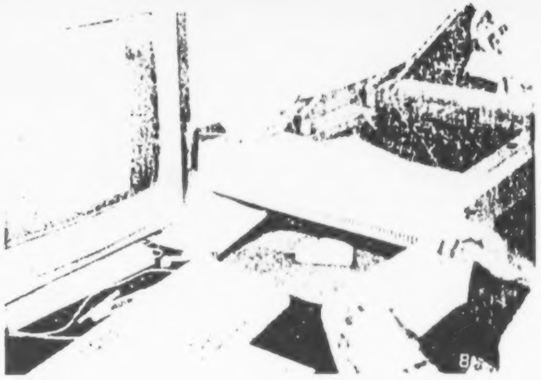
PRIMARY SOURCES AT RISK

Today, millions of primary source documents, including archival records, manuscripts, legal papers and books are threatened with destruction. Printed on acidic woodpulp paper, these materials face continued deterioration and eventual extinction unless immediate action is taken to ensure their survival.

Historically, microfilm has been the reformatting option of choice. While microfilm remains a tested and viable preservation solution, emerging digital technologies offer exciting new alternatives to preserving these priceless and irreplaceable materials.





DIGITAL IMAGING

At Penn State, a demonstration project is currently underway to test the process and feasibility of digital imaging technology and optical disk storage as a means to safeguard primary source documents from their eventual and inevitable demise. Equally important, the project will evaluate the improved access and service components that the technology offers.

Using Xerox Corporation software and hardware products, an in-house digital image workstation has been set up to scan, digitize, index, store, retrieve, transmit and print images on demand for use by scholars and researchers.

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ADVANTAGES FOR RESEARCHERS AND SCHOLARS

Once original sources are digitized, this technology offers researchers and scholars:

- improved access and retrieval through sophisticated indexing techniques
- high resolution printing capabilities
- the ability to transmit images (text and graphics) across data networks
- computer enhanced images produced from brittle, fragile and fading documents
- a means to capture and safeguard original documents for perpetuity

PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK, PA

Penn State University Pioneers Accessibility

and convenience of optical storage, digital printing

Telegrams announcing plant-by-plant election results, an order for shop steward buttons, a letter from Franklin Delano Roosevelt — these items along with diaries, photographs and newspaper clippings chronicle the union movement among steel workers during the 1930s and 1940s.

Housed in the archives of the University Libraries at Pennsylvania State University, in University Park, PA, these documents and thousands of other letters and printed memorabilia give the jubilant and mundane details of election battles in the union's struggle for recognition.

The papers themselves are located among biographical documents of individual members of the Steel Worker's Organizing Committee (SWOC) and stored in cartons at the library, where another kind of struggle is taking place.

Right now preservationists at the University Libraries are striving to safeguard the materials while at the same time making them accessible to students, faculty and researchers. L. Suzanne Kellerman, who is Penn State's first preservation librarian, leads the effort. Kellerman is responsible for prevention, treatment and education aspects of preserving the libraries' general collection and for books and other materials in bad condition.

Working with optical disk and digital scanning technologies, Kellerman and her staff are cataloging and transferring the 13,000 pages that detail the work of the SWOC members to electronic storage. They hope to complete their scanning work on this and another project within eighteen months.

PENNSTATE

1855

STANDBY TO SCAN: *William Gearhart (left) and David Decker, technical support staff for Penn State's optical storage demonstration project, evaluate settings before scanning one of the 13,000 documents pertaining to the Steel Worker's Organizing Committee.*

Testing Digital Preservation

"This is a demonstration project, testing digital as a preservation technique," says Kellerman.

Salvatore M. Meringolo, associate dean and head, Collection and Reference Services, at the University Libraries, explains that Penn State initially was one of eight prominent universities invited to discuss digital scanning as an access and preservation medium by the Commission on Preservation and Access in 1991.

The commission agreed to partially underwrite studies at several schools, each addressing a particular aspect regarding the use of digital technologies.

Xerox Corporation began working with Penn State soon thereafter to develop a prototype document production system that could scan, store and print on demand information while maintaining the integrity of the original work, including graphics and text. The proposed system would be similar to the one originally developed in partnership with Cornell University for addressing digital preservation issues.

Aspects of Digital Technology

"Essentially the commission had two questions: were we interested in the technology and could we come up with an interesting project," Meringolo adds.

The university developed a program regarding digital storage and retrieval of two archival collections, the SWOC papers and the Pennsylvania Agricultural County Agent Reports. The agents' reports, which encompass more than 300,000 pages, include weekly summaries of activities in each of the state's 67 counties for the 70-year period from 1912 to 1983.

The Penn State preservation project received approval in June 1992, and by October had hardware and software on site. When staff were hired in November, the project was underway. It is funded by the commission and the university, with equipment and technical assistance from Xerox Corporation.

Creating a New Collection

According to Kellerman, the libraries' goal with the SWOC papers is to create an artificial collection by putting all pertinent material from the six individual members' records together.

"We are creating an image file that duplicates the original material as closely as possible. Because we have so many different kinds of documents — ledgers, newspaper clippings, photos, carbon copies, telegrams — on so many different kinds of paper with so much variation in the legibility of text, it is quite a scanning challenge."

Technical support staff are using a Xerox workgroup scanner to create digital copies of the documents. They are testing their settings and exposure lengths with a Xerox proof printer.

"I had suggested that we scan the smaller collection first without realizing that we would have to create parameters for each page. Our desire to get as close as we can to the original limits our scanning rate to 50 to 70 pages an hour. We know that we are building guidelines and when we get to the county agents' reports, scanning will go much faster," Kellerman says.

"Although originally we were concerned about the light that touches the documents," she says, "we realized that scanning subjects the documents to less light than conventional copying. Except in rare instances, this process should be the last time these documents are handled. For most patrons, facsimile copies are satisfactory."

Current Standard is Cumbersome

Serving the nearly 40,000 students at the University's main campus, the University Libraries put their circulation transactions at more than 4 million a year. The libraries at University Park contain more than two million volumes, 1.3 million documents and more than 2 million microforms.

While microforms, or individual pages transferred to microfilm, are cataloged for reference, the process of finding specific information is cumbersome. Patrons first must load the microfilm into a viewer and then manually crank through each roll until they find their material.

The white-on-black on-screen print sometimes presents problems in reading and often these difficulties carry over to reproductions of the material printed in hard copy.

Microfilm is the standard preservation technique, according to Kellerman, because, "Tests done on microfilm show that it will last around 500 years. However, our patrons, the faculty and students, know that microfilm is antiquated for access. There would be good acceptance for something better."

With optical storage, patrons have the opportunity to view facsimiles of documents at a workstation and request hard copies printed from digital masters. The process begins with scanning.

Scanning Creates Digital Master

Scanning the documents creates a digital master that is stored on a 5 1/4-inch optical disk, similar to a compact disk. As many as 5,000 pages, 2,500 to a side, are stored on each disk.

As part of the scanning process at the University Libraries, technicians are creating an index, cataloging documents to facilitate future access. With optical storage, a patron using the index can go to the right section immediately without the necessity of thumbing through on a page-by-page basis until reaching the right information.

When it comes to printing the stored documents, Kellerman explains the libraries will use one of the two Xerox DocuTech Network Publishers in its Business Services print shop. The DocuTech Network Publisher is a 135 print-per-minute, 600 dots-per-inch networked digital publishing system.

The Network Publishers were ideal for the project because of their ability to receive documents over networks, store them in memory, and then print them with very high quality.

Through use of the Network Publishers to print course packs and other university materials, Penn State libraries and administrative staff were able to visualize how the system could be linked with the workgroup scanner for the optical storage demonstration project.

William Meyer, assistant manager, Administrative Support Services at Penn State, points out that his staff already accepts material via network, explaining that his staff routinely accepts work via InterNet, a worldwide fiber optics network. InterNet operates on the campus and links the university with other academic institutions internationally.

QUALITY COMPARISON: *David Decker, technical support staff for Penn State's optical storage demonstration project, compares an original document with its scanned image.*

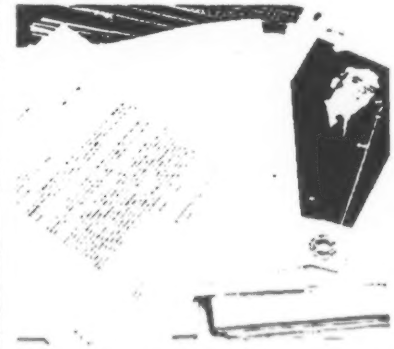
PRESERVING MATTERS: *Salvatore Meringolo, associate dean and head, Collection and Reference Services at Penn State's University Libraries, discusses the university's optical storage demonstration project with L. Suzanne Kellerman, preservation librarian, who supervises work on the enterprise.*

Accessibility: the Optical Advantage

"One of the great advantages of optical over other storage options is its accessibility," says Meringolo. "Right now, we're putting these documents into an optical storage format. In the near term, we see directories of indexes on networks within the libraries. A user could see which pages contained the right information and request prints of those particular pages.

"The next step would be workstations linked to a network. At that time, it will not matter where the user is — on campus or elsewhere. Scholars from all over would have access to information."

> The role this technology could play in scholarly publishing could be critical.



VARIED ORIGINALS: *Part of the Howard T. Curtiss papers are ready for scanning at Penn State's University Libraries. The letters, carbons and clippings visible are some of the items from Curtiss that are included in the papers of the Steel Worker's Organizing Committee papers housed at Penn State.*

Meringolo anticipates a range of possibilities through optical technology and the DocuTech Network Publisher. "We see tremendous potential for this kind of technology, not just optical storage, but on demand publishing as well. In fact, the role this technology could play in scholarly publishing could be critical."

On Demand Publishing Limits Costs

He points out that with university presses, just as with publishing companies, there is a growing emphasis on cost management. "There are more and more expenses involved in printing academic treatises in small quantities. With this technology, it is possible to print what you need, instead of printing a run of 500 and hoping to break even. For academic institutions this technology could limit cost exposure while assuring that information is disseminated."

Meringolo sees the technology as offering publishing options that may be yet to be developed. "With networks, vendors and publishers can come up with a whole new mode of publishing."

DocuTech Prints Mail Merge Letters

While typical InterNet operations involve transfer of information between sites, Meyer and his staff developed a new application. Meyer's group created mail merge letters and printed them on a DocuTech Network Publisher to be sent to a selected group of 14,000 alumni.

His group keeps the Network Publishers busy, printing 800,000 impressions a month on each machine. The copy center works in close cooperation with the university print shop. "Our print shop manager has started routing work to us," Meyer says. "We're a cost center. The Network Publisher is viewed as production equipment, just like a Heidelberg."

An understanding of networking possibilities on an international level will be critical for the future of document storage and transmittal, according to Meringolo.

HOW IT'S DONE: *L. Suzanne Kellerman, preservation librarian at Penn State, shows David Decker (left) and William Gearhart how to request print copies of materials they've scanned from the Xerox DocuTech Network Publisher. Decker and Gearhart are scanning in upwards of 300,000 documents as part of the university's optical storage demonstration project.*

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SELECTED READINGS

ASSOCIATION OF RESEARCH LIBRARIES OFFICE OF MANAGEMENT SERVICES

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